The Journal

OF

The Kansas Medical Society

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The Sheep and the Goats. The movement in the profession toward more thorough organization and the raising of our standard in drug giving and education is raising a tremendous row among those who are hurt thereby. If one wishes to learn the real feelings of those who have hitherto fattened on an unorganized and illy trained profession, one has only to read the American Medical Journalist. The bitterness and malice shown are appalling. Down in Texas where a state association journal has just been started, the private journals are doing their best to get up a row. In other words, the issue has been joined and the character of each journal is being revealed. We, in Kansas may congratulate ourselves that we have no vested interests to fight an altruistic movement such as ours for organization is.

The WITCHITA MEDICAL JOURNAL was owned by high-class physicians and was therefore willing to unite with the official journal. The same is true of the WESTERN MEDICAL JOURNAL of Fort Scott. There is room in Kansas for just one journal and that should be controlled by the organized profession. The platform of this journal is simply to seek the best interests of the Kansas physicians, and these interests we believe to be best

promoted by the thorough organization of Kansas physicians and by the establishment of higher standards of admission to our medical schools and to the rank of practitioners. We believe that the JOURNAL gives more solid original reading matter than any other journal in this section of the country, so that even if one disagrees with us on organization, the JOURNAL is of value to him in bringing him the writings of his colleagues. For these reasons, we believe that we have no local contests on the great problems which the American Medical Association is trying to solve. But yet, we should like to have our readers scan with discriminating minds the fulmination of journals sent them (now more than ever) gratis. Merely calling names is not proof. To assert that a medical "trust" is being formed, does not prove it. To say that physicians are being "coerced," not only does not prove it but rather proves that a wolf is being "coerced" into separating himself from the fold. A little thought shows us that our own self-interest demands that we get together and work together; hence, all hail to the present policy of Editor Simmons and his associates.

Dentistry and Medicine. Dr. C. M. Jackson, of the University of Missouri, read a paper before the Missouri Society on Medical Education, in which he advocated the introduction of the elective system in the cirriculum. Incidentally, he advocated the furnishing of large library and laboratory facilities. But what we wish to emphasize is the following:

"As an extreme instance of what might possibly be accomplished by an extension of this principle, I will mention the establishment of Dentistry as (what it rightly should be) a special branch of the medical profession. Nobody, and least of all the dentists, would deny that a knowledge of the general principles of medicine and surgery would be a great advantage to the practitioner of dentistry. On the other hand, the dentist might properly object to spending much time on special subjects, such as opthalmology and dermatology, which would be of no direct benefit to him in his practice.

"Why not recognize this principle, require of the dental student aside from the necessary preliminary medical sciences) only a minimum of required work in medicine and surgery, allow him to take as electives the special work now required in dentistry, and at the end of four years give him his M. D. in dentistry? It seems to me unquestionable that some such plan would elevate the dental profession and be a source of additional strength to the medical profession."

Good Manners. "No conscientious physician escapes great perplexity, in many relationships thrust upon him by novel situations, and when too late sometimes regrets the course adopted. Not a few have met a Waterloo because ignorant of good manners. Others have failed to make a

favorable impression on fellow doctors, on the community, or even on their own patients, so drifting to personal ruin, and professional disgrace.

"In large degree professional bad manners arise from defective college training. Few colleges make any pretense of training their students in 'good professional manners'; many provide teachers with offensively bad manners, so that the wonder is that so many graduates acquire 'good manners.'

"Medical colleges should provide teachers with model good manners, so that students might absorb them by daily contact. More than is generally believed, the teacher's manners are wrought into the texture of the student's life.

"Second, the college should provide an adequate course of instruction, the teacher of each separate sort of practice, combining his own studies with those of his predecessors, so making an 'up-to-date' course.

"Third, the college should require a final examination on 'good manners' ere conferring the degree of doctor of medicine. State Medical Examining Boards could materially assist in this propaganda, by requiring of applicants for a state license, an intelligent knowledge of "good manners."

"Lastly, medical societies would do well to promote this part of "medical sociology," as their efficiency and very existence are intimately allied to the reign of "good manners" over each member of the medical profession."—Journal of the Michigan State Society.

American Medicine comments, July 1, as follows: "There is a splendid, and perhaps unexpected, result of the plan of the American Medical Association as to non secrecy in the drugs used by or advertised to the profession. It has forced into the open, or will inevitably do so, the concealed journalistic supporters of the nostrum traffic. By doing this, it will as certainly expose the so-called medical journals which do not care a fig for the medical profession they have so long deceived and exploited, and which have been published solely for the financial benefit of the owners and their compliant editors. One can never cease hammering that in the professional use and control, indeed in the professional ownership of its medical literature, lies a vast deal of the progress of medical ethics, art and science. The action of the American Medical Association cuts sharp and clear with these pseudos, and says: "On this side the sheep, on that the goats." One of our contemporaries has come out frankly and says: "We are heart and soul with the goats and for profit in the advertising business." Another gibes at the attempt of the "reformers," "the cackle of some young and eager reformers," criticises, charges with many inuendoes that some of the American Medical Association council members are in the pay of manufacturing companies, and otherwise shows plainly its sympathies, "letting 'I dare not' wait on "I would." Come now, gentlemen journalists

editors, publishers, subscribers and contributors, no befogging will prevail. Choose your party! Physicians must know where you stand, and writers of medical articles must know where to send them for publication."

Physical Therapeutics. The success of "the nature healers" in Germany and of the osteopaths in this country tends to prove the value of the so-called physiological therapeutics. We believe that physicians must become more conversant with these methods of treatment. Therefore, we are glad to note that the University of Kansas, in establishing its new cirriculum has formed a department of physical therapeutics. Herein will be taught balneotherapy and massage by Dr. Sandzen, a graduate of the Univertity of Upsala (Sweden) and electro-therapeutics by Drs. Scott, Troutman and Clark, who are more or less well known to our readers.

The Board of Control for the state charitable institutions has been quite active since July 1. F. W. Knapp, former private secretary to Governor Hoch, was chosen their secretary. Miss Edith Wood of Topeka is their stenographer and F. A. Baker, of Topeka, the assistant secretary. The first "stir-up" was the removal of Dr. C. S. Newlon from the superintendency of the Winfield institution for imbeciles. Dr. Newlon has had to take entire charge of the medical work there and has had no sinecure. We have felt sorry for him while he was in office and we hope that he will have pleasanter work out side. His sins, as nearly as we can read the reports, were those of the former board, and his removal is more of a blow at the Henry Allen board than at him. His successor is Dr. J. W. Ward, of Edna, Labette county. We wish Dr. Ward success in his new work and hope that he will be able to make a scientific study of his charges and contribute something to the professional knowledge of the subject of imbecility. We invite his contributions to this JOURNAL.

The board has ordered that the superintendents of charitable institutions have the same fare as the inmates. This will probably raise the standards of the fare of the inmates. We hope that the Board of Control will succeed in establishing a good civil service, which will do away with the popular "horrors" of Topeka and the other hospitals.

The State Board of Health now issues a monthly bulletin. We have before us only the issue for July, 1905. Hence we cannot give the health statistics for July or August, as we would like to do. In this connection we would like to know if our readers desire us to continue printing the health reports as we did in the spring. A card to this office will register your vote.

THE PORTLAND MEETING.

DR. F. M DAILY.

Delegate from Kansas.

The meeting of the American Medical Association convened in the armory of the Oregon National Guards at Portland on July 11, at 10:30 o'clock. The president, Dr. J. H. Musser, Philadelphia, called the meeting to order; Rev. A. A. Morrison led in prayer; and addresses of welcome were delivered by Governor Chamberlain and the mayor Dr. Henry Lane in behalf of the state and city and by Dr. Geo. F. Wilson, and Dr. Henry Coe in behalf of the state, city and county medical societies. The president-elect, Dr. L. S. McMurtry of Louisville was then introduced by the retiring president.

The room was large and the noise created by the exhibit in the adjoining room was so great, that only those who sat in the front rows heard the address. It was a tremendous blunder to allow the venders of nostrums and appliances to sell their wares so near the auditorium. It left the seats empty and compelled the president to deliver an address upon which he had been putting a year of preparation, to a corporal's guard.

The symposium on nephritis with papers by Dr. Councilman of Boston, Dr. Stengel of Philadelphia, Dr. Emerson of Baltimore, Dr. Tieken of Chicago, Dr. Greene of St. Paul, Dr. Philip King Brown of San Francisco and Dr. Shattuck of Boston was well attended; so much so that many were unable to obtain seats in the large auditorium. This symposium alone was well worth the time and expense of attending the Portland meeting, to say nothing of the other 230 papers read before the eleven different sections into which the association work is divided. All of the papers were of a high order. Next to the symposium on nephritis was the one held the day following in the same auditorium, the symposium on the stomach by Drs. Frank Billings of Chicago, George Dock of Ann Arbor, J. H. Musser of Philadelphia, Chas. G. Stockton of Buffalo. The subject was so important and the speakers so prominent that even standing room in the halls and about the door was occupied.

The attendance fell much short of the anticipation. There were only 1634 members in attendance. The largest attendance from any state was 243. Our state of Kansas furnished 18. This, of course, is an improvement over that at Atlantic City of last year, but it seems small when Pennsylvania, clear on the other side of the continent, sent 97, and Illinois123.

What is the matter with the doctors in Kansas? Are we too much attached to the worship of the golden calf, or have we become so infected

with that egotism which leads us to believe that we do not need the benefit of contact and association with teachers and laboratory workers in our profession? It is to be hoped that our organization in Kansas will bring us into closer contact with each other and lead us to realize more clearly than ever before, our mutual short-comings and our need for study, research and travel.

The physicians and citizens of Portland left nothing undone in the way of elaborate entertainment, for instance, free dinners, boat excursions on the Columbia (with baked planked salmon dinner at Bonneyville), etc., etc.

Dr. Wm. J. Mayo, of Rochester, Minn., was the unanimous choice of the convention for president; and Boston was selected as the next meeting place.

Altogether, the meeting was one of the most harmonious and successful that it has ever been my pleasure to witness in the past 25 years. I therefore suggest that every physician in Kansas subscribe for the Journal of the American Medical Association and get the fruits of the 240 papers read and discussed at this great meeting of the most noted physicians and surgeons of America.

SOCIETY NEWS.

Cherokee County Medical Society met in Scammon on August 8, at 8 p. m., with president Scales presiding and Drs. Green, Brown, Mahan, Revell, Markham and Brookhart present. Minutes of previous meeting read and approved. Two cases of pelvic abscess were reported by Dr. R. M. Markham, followed by a general discussion of the subject.

Drs. R. S. Mahan of East Mineral and A. R. Homer, of Weir City made application for membership. Having received a communication for the county commissioners that they would look with favor on a recommendation for County Health Officers made by the County Medical Society. It was moved and carried that Dr. J. H. Green, of Galena, be recommended. The subject of non attendance of members was discussed, it being the unanimous opinion of those present that the payment of dues was not all of the duty of a member, that he should attend the meeting when possible, and he should try and make it possible often, so as to assist in the betterment of the profession. It was, therefore, moved by Drs. Brown and Green that any member absenting himself from three consecutive meetings, with-

out an excuse acceptable to the members present should be subject to suspension. The vote to be taken at the next regular meeting in September, after due notice has been given all members. Adjourned to meet in Galena first Tuesday in September.

H. H. BROOKHART, Secretary.

Cowley County Medical Society, Kansas.—The physicians of Cowley county met at Winfield, July 13, with the aid of Dr. Oliver J. Furst, Peabody councilor for the fourth district, organized a society on the standard plan with a charter membership of fourteen. Dr. Jas. W. Sparks, Arkansas City, was elected president; Dr. Leon Jacobus, Winfield, vice-president; Dr. Ernest F. Day, Arkansas City, secretary, and Dr. H. L. Snyder, Winfield, treasurer. A preliminary meeting was held June 24 in Winfield.—Journal A. M. A.

Osage County Medical Society met at Osage City on the evening of August 10. A banquet was given at the Everest hotel and everyone present reported a good time. There were nineteen present, including Dr. J. E. Sawtell, of Kansas City, councilor of the district. Dr. Sawtell gave us an interesting and instructive address and numerous toasts were responded to by other doctors. While our society is not as large as we would like to see it, we feel that it is in a healthy condition and has not yet attained its full size.

J. A. CONNOR, Secretary.

Sumner County will hold a meeting Sept. 27. President Bowers will speak on the surgical diseases of the pancreas; Dr. Bowers on entero-colitis; Dr. W. J. Neal on hepatitis; and Dr. Hoxie on medical education. Drs. Cobean, Bartlett, Kisecker, and Spitler will present cases of bile duct disease. Drs. Walker and Spitler will report on the Portland meeting

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SURGICAL DISEASE OF GALL BLADDER.*

G. C. PURDUE, M. D.,
Wichita, Kansas.

For nearly 250 years all gall bladder surgery done upon living human beings was purely accidental, and not until the last two decades has surgery in this region been upon a thoroughly scientific basis. But during that short time such rapid progress has been made that now surgery of gall bladder and bile passages is one of the most satisfactory branches of our art. The death rate, taking the cases as they come, is hardly more than

*Read before the Kansas Medical Society, May, 1905.

five per cent, and in uncomplicated cases less than two per cent, the results depending to a large extent on the condition of the patient. If all were surgeons here today I would certainly apologize for using the time that I will consume for I will perhaps say but little of interest to them. But to the general practitioner I hope to say something of interest, for he has the fate of the sufferer from gall stone diseases in his hand, either to guide to surgical relief or to advise him to continue a life of uncertainty and danger which intensifies itself towards the end. Therefore the best excuse I can offer for this short paper is that perhaps I may be able to arouse in some of the members of this society a desire to become more familiar with the diseases and conditions which are so often met by the general practicioner whose duty it is to make a diagnosis before the surgeon is consulted.

It is said by Kehr is his little work on gall stone disease, that whoever wishes to review and recognize a disease must first of all apply himself to the study of its pathological anatomy with all the means which are at his command. Diagnostic acumen, the finest perceptive powers, experience and practice are qualities and gifts of the doctor which are not to be underestimated, yet they avail him nothing if his knowledge of the pathological processes under which the disease develops are hazy and defective, and it is unfortunate for the practitioner of general medicine that the study of growth and development in surgical diseases of the gall bladder is extraordinarily impeded, since he is for the most part thrown upon his observations at the bed side, or at the autopsy table. Without discussing the chemical formations of gall stones, I will for a short time turn my attention to the cause of their appearance or presence in the gall-bladder, together with the etiology, pathology, and rational treatment for their removal, and the complications caused by them.

The location and anatomical structure of the gall-bladder and the fact of its being in close contact with the colon, stomach and duodeunm renders it susceptible to infection, and its being so suspended that drainage is interfered with renders it liable to disease. Cholelithiasis is indeed a very common disease, though fortunately for humanity, not every case of gall-stones requires medical or surgical attention. A statistical estimate based on a great number of necropsies not absolutely reliable shows stones in from ten to twelve per cent of these autopsies, which is probably not far from correct. So that it is probably a true estimate that from ten to twelve per cent of the living are carrying with them, unconsciously in may cases, a gall-bladder containing gall-stones. In fact gall-stones are so frequent that a surgeon pointedly says that every church, every theatre and every concert hall would resound with lamentation if stones occasioned discomfort in all cases.

Kehr says that gall stones are seldom found before the age of twenty. Douglas says the formation of biliary calculus is too generally regarded as incident only to middle and advanced age. Still collects twenty cases in children, ten of these in infants, and Thompson is able to record six cases in the new born, therefore while cholelithiasis is more often found in middle and advanced age, yet no age is exempt from the disease.

From sedentary habits, dress and child bearing, the female sex is more liable to the disease than the male, in the proportion of four to one. Everything that retards the normal flow of bile or disturbs its secretion or composition predisposes lithiasis. Among there causes we find an abnormal position of the gall-bladder from pressure caused by enteroptosis, or inflammatory adhesions of the gall-bladder from traumatism, or circumscribed peritonitis from other causes. The apathy of age, arteriosclerosis and retarded metabolism, explain the frequency of gall-stones in advanced age. The conditions incident to partuition, together with the injuries to the generative organs at that time, producing invalidism, and lack of exercise with constipation as well as relaxed abdominal wall, are reasons for the frequency of gall-stones in the female. Heart lesions predispose to the formation of gall stones, in fact statistics show the dangers to be double that of undisturbed circulation. It has been shown that any condition which will produce bile stasis will predispose to cholelithiasis.

Diet and climate do not predispose to the formation of gall-stones. This is shown from the fact that the disease may appear in all countries and in all climates. Some effort has been made to ascribe lithiasis to the drinking of insufficient water, or to the imbibition of water containing an abundance of lime. This is merely an assumption and is contrary to our chemical knowledge of the constituents of bile. The formation of a biliary concrement is a process of precipitation, says Douglas, which is evidence that lithiasis is not a constitutional condition but a local one occurring when there is some pathological condition of the gall bladder. There must be some change in the composition of the bile that will throw some of its constituents out of solution. It does seem that the chemical analysis of the gall-stones would throw some some light on their origin. It is a fact that cholesterin is the principal constituent of biliary calculi, and that it is found but sparingly in the blood itself, and in the liver not at all except under abnormal conditions, yet this is a constant constituent of the bile, and its presence can only be accounted for as a product of the epithelial cells of the biliary ducts and gall-bladder. The next chief ingredient is known as bilirubin which is insoluble in alkaline media, but not in acid. It is precipitated by a change in the reaction of the bile which will occur from stasis, catarrh, or any disturbance of free drainage. Lime which is a normal ingredient of the bile in a very small amount is derived chiefly

from the mucus glands of the gall-bladder, and its presence in excess is therefore due to some perverted action of these glands. The chemical change which the products of epithelial inflamation has on the bile favors the precipitation of bilirubin calceum.

It has been the endeavor of many experimenters in this field of research to show that cholelithiasis was a local condition and the question as to its local or constitutional origin has been simplified by their efforts. Naunyn's experiments prove that the amount of cholesterin and lime in the bile was constant and unchanging without any relation whatever to the food ingested, and while the habits of life may tend to development of calculism, this tendency is not due to the amount of cholesterin or lime in the bile. He concludes that the condition which favors the precipitation of the solid constituents was to be found in the gall-bladder and the bile-channels. The proof is to be found in the nucleus of the gall-stone itself, which is a pearly body and consists of epithelial cells in a state of fatty or hyaline degeneration. Thudicum found the nucleus to consist of pieces of membrane from the gall-duct. Others have found fruit seed, metallic mercury, needles and other foreign bodies in the gall-bladder, but these have served to create an atrium for infection, thus giving rise to the catarrhal condition necessary for the chemical alteration in the bile to produce precipitation.

It having been proven that the condition favorable to the formation of gall-stones was almost entirely local, the subject rested here until 1891, when the restless student of research began to ask what produces this local condition. The microbic origin of the disease was suggested as early as 1886 by Gallippe. Welch demonstrated the bacillus typhosus in the gall-bladder and suggested its possible relation to cholelithiasis.

The finding of bacteria in gall-stones by Naunyn and the demonstration of the presence of bacillus typhosus as a cause of cholecystitis by Gilbert, Girode, Blachstein, Milian and others seemed sufficient evidence to establish the relation between the presence of bacteria and the formation of gall-stones.

After being convinced of the local origin of cholelithiasis, another question presents itself, "How do the bacteria gain access to the gall bladder and biliary ducts?" There are two theories as to the routes of entrance of micro-organisms into the biliary channels. The one usually accepted is that they pass through the common and cystic duct from the duodenum. It is believed by Cushing and others that they enter through the blood through the portal circulation. It has been shown by Charcot and Gomboult that after ligation of the common duct the bile above the ligation becomes infected. In this way the hemic origin of infection was established. Hence we are led to believe that the micro-organisms producing cholethiasis

or cholecystitis may enter the gall bladder through the common and cystic duct or through the blood of the portal circulation. Be this at it may, the evidence is very conclusive that gall-stones are caused by some form of bacterial infection, and so enthusiastic are some observers along this line, that they have divided biliary calculus into two groups: First, those due to the colon bacillus, and second, those due to the typhoid bacillus. There are those who think that some other element must be present for the production of gall-stones, and claim that the presence of gall-stones invites infection, among these are such men as Cushing and Osler. In any case it may be said that biliary stagnation, however induced, and a lithogenous catarrh are essential elements for the production of gall stones, and that the preponderence of evidence would indicate that this catarrh is attributable to infection.

PATHOLOGY.

It is very rare that gall-stones are formed outside the gall-bladder. Those that are found in the biliary channels of the liver, the cystic duct or the common duct have migrated to their present location. It would look reasonable that if we ascribe the pathogenesis of gall-stones to a bacterial infection, that we would expect to find in all operations for gall-stones, and all autopsies, in which gall-stones existed, evidence of inflammation. This is not the case, however, for we often find many stones in the gall-bladder without any evidence of inflamation ever having existed. and we often find the bile and the gall stones themselves appearing sterile. Late investigations, however, prove that normal bile contains a few bacteria which can be detected if a sufficiently large quantity be examined. But in every case of obstruction of the cystic or common duct from gall-stones, dilitation of the channels above the impaction takes place, with stagnation and infection of their contents, and this condition immediately invites bacterial infection.

Douglas truly says that the effect of gall-stones pathologic and symptomatic, immediate and remote, are influenced so largely by the location of the stones that they must be studied in their different habitations. Many cases of stones in the gall bladder exist indefinitely without causing any or at most a little inconvenience, depending on the size of the stone, the degree of bacterial infection or from the displacement of the natural relation which exists between the bladder and its duct.

The prolonged presence of these foreign bodies in the bladder causes hypertrophy of the bladder walls, which is both mechanical and inflamatory in its nature and finally results in contraction of the bladder around the calculus. This hypertrophy of the bladder wall with contraction was very

marked in one case on which I operated. The contraction had been so great that the stones, nineteen in number, had been forced into the cystic and common duct, the gall bladder itself being almost completely atrophied. This case demonstrated very beautifully Courvoiser's law which is " In cases of chronic jaundice due to blockage of the common duct, a contraction of the gall-bladder signifies that the obstruction i sdue to stone,a dilitation of the gall bladder, that the obstruction is due to causes other than stone,"

Again the mucous membrane may become eroded from pressure when infection takes place followed by pericholecystitis and inflammatory adhesions to other viscera through which perforation may occur, thus relieving the bladder of its contents, producing drainage of the contents and a cure may follow: or an acute infection takes place without adhesions, rupture of the bladder-wall occurs, discharging the infected contents into the free peritoneal cavity, causing an acute general perforative, peritonitis which may produce fatal termination. Or we may have acute infection with suppuration of the mucous memberane of the bladder, causing empyema of that organ and producing symptoms of general infection with chills, fever and sweating, resembling very much chills of malarial origin.

In some cases where pressure necrosis occurs with perforation of the wall of the gall-bladder, the peritoneum is able to take care to the infection and no serious symptoms follow. The stones are encapsulated by the omentum or other organs and an abscess with drainage is established, either directly through the abdominal wall or through the umbilicus, which often happens. In a case which I operated on a few months ago a history of acute pain in the region of the gall-bladder sixteen years previous was given, this pain was followed by a painful tumor in the region of the appendix, which after several years discharged an offensive fluid through the umbilicus. This had continued for seven or eight years when she consulted me about her condition. I decided after an examination to make an exploratory incision. I cut down through the abdominal wall over the tumor and found an abscess containing twenty-three gall-stones. After this the discharge from the umbilicus ceased and the tumor disappeared.

The stones may be discharged through the sinus formed, or may lie in the abscess for years and the patient enjoy fairly good health. The stone may by accident erode the inner wall of the bladder, burrow into the liver, occasionally becoming encysted, but usually giving rise to hepatic abscess or by perforation to a subdiaphragmatic abscess.

If a stone becomes engaged in the cystic duct in may stop the flow of the bile into the gall-bladder, or it may be so located as to allow bile to enter the bladder but not escape, or it may be allowed to escape but not to enter. In the former condition the bile may remain sterile for a time

and then be infected, causing all the phenomena of infectious cholecystitis. In the latter, where the bile is allowed to escape but not enter the gall-bladder, and the mucous membrane is not destroyed , the bladder will become filled with a clear, albuminous fluid, the secretion of the mucous glands, and not bile with the coloring matter absorbed. If the obstruction is absolute and no fluid passes out or into the bladder, it may remain sterile, but increases to an enormous size.

Cholecystitis and cholangitis may follow cystic duct obstruction if infection takes place, but this is not a common occurrence. There will be no jaundice in cystic duct obstructions unless the stone is so large that it obstructs the hepatic or common ducts, or adhesions occur. To have jaundice in cholelithiasis there must be an obstruction to the common or hepatic ducts. I should like to empahsize this statement, as jaundice is the cardinal symptom of common duct obstruction, and is distinguished by a perfectly characteristic ebb and flow in those cases in which the stone forms a ball valve, that is in the very great majority. In the event that an engaged stone should retreat into the bladder, or escape by the common duct into the intestines, the normal drainage will be established unless so much injury has been done to the mucous membrane as to cause stricture of that duct. In this case there will be infection with cholecystitis or atrophy of the bladder will follow.

When a stone becomes engaged in the hepatc duct it is usually assocated with calculi in the cystic and common ducts, and occupies that position secondarily, their primary seat of origin being in the gall-bladder. The effect of such obstruction is to produce dilatation of the ducts above the seat of obstruction, stagnation of bile, enlargement of the liver, with infectious cholangitis, pronounced jaundice with rapid destruction of the red blood corpuscles, and an early and fatal termination.

In obstruction of the common duct from stones, other and more grave symptoms appear. If the obstruction is absolute, dilatation of the duct, with enlargement of the liver, cholangitis, if infection occurs, and jaundice will occur The common duct may become greatly dilated and form an abdominal tumor, or pressure necrosis and perforation may occur with general infectious peritonitis. If the obstruction should be of the ball valve variety which is described by Fenger and others in which the bile is allowed to pass, and the duct remain uninfected, the acute symutoms will not be present, but there will be repeated attacks of jaundice and pain, and the common duct will be crippled by the constant irritation of the stone, which invites infectious inflammation and adhesion to neighboring organs. Fistulous openings may occur between the duct and the duodenum, colon or any other hollow organs which may become attacked by adhesive inflammation, and in this way the calculus be removed, the fis-

tulous opening gradually close and a cure result, with a slight functional distubance of digestion. A stone way be arrested in any portion of the common duct, and various pathological changes take place, an enlargement may take place resembling a tumor, and even be diagnosed as an enlarged gall-bladder. Through this mistake in diagnosis surgeons have even operated and drained. Other changes more serious and dangerous to life may result. If permanent obstruction takes place, infection is liable to follow, producing profound jaundice, cholangitis, enlargement of the liver, general and serious derangement of the red corpusles of the blood, with decrease of hemaglobin, hepatic abscess, and finally fatal hemorrhage occur. Again, if the obstruction should occur at the opening into the duodenum or ampulla of Vater, the course of the bile may follow the duct of Wirsung, and thus effect the pancreas, producing a fatal pancreatitis.

A large stone escaping from the gall-bladder, cystic or common duct by fistulous connection with the intestines may produce a volvulus or an obstruction. A case that I treated medically for several years and whose attacks were very violent suddenly ceased having gall-bladder trouble, but soon after began having trouble in defecating, complaining of having a stoppage of the feces just inside the rectum, and having to remove the obstruction body by pushing it up into the bowel, when the act of defecation could be completed. This becoming very monotonous, she consulted me and during examination under chloroform anaesthesia, I dilated the anus and removed two very large gall-stones, after which she had no further trouble.

If the cystic duct should become permanently closed, the gall-bladder may become very large and may fill the greater portion of the abdominal cavity, although not often larger than a child's head, ordinarily about the size of a large pear. In a patient on whom I operated, the bladder contained several stones, a sero-purulent fluid and extended down to the appendix vermiformis, causing symptoms of appendicitis. In fact a diagnosis of acute appendicitis was made and the operation was for that disease. There was in this case a diseased appendix which was removed and the gall-bladder drained, and a rapid and uneventful recovery followed.

Only when the hepatic or common duct is obstructed do we find hepatic enlaregment. Cystic duct obstructions or cholecystitis does not obstruct the normal flow of the bile, therefore there is no enlargement of the liver, but it is different when obstruction of the hepatic or common duct appears. The tumors in gall-bladder disease are rapidly formed and may disappear suddenly if the obstruction is removed. Tumors that are slowly formed and without pain are to be looked upon with suspicion of malignancy.

For the lack of time, I am compelled to omit the dfferential diagnosis of this disease, neither can I discuss the localization of gall-stones.

Cholelithiasis is eminently a surgical disease and as the title of this paper is Surgical diseases of the Gall-Bladder, I will not attempt to say anything about medical treatment.

An operation for cholecystitis or cholelithiasis is only contra-indicated when a helplessly low state of the patient exists from toxemia, from bacterial infection, or a condition or prolonged and profound icterus.

There are several operations recommended and are applicable to the different conditions and complications that exist. Cholecystomy is perhaps the one most often indicated and is an operation almost entirely free from danger when done under aseptic conditions. This operation consists, as you well know, of opening the abdomminal wall either just to the right or through the right rectus muscle, mmediately over the gall-bladder, attaching the wall of the gall-bladder to the parietal wall of the abdomen, opening and evacuating the bladder and draining either with gauze or with a drainage tube. This operation is indicated for the removal of stones in the gall-bladder or cystic duct, for acute obstruction of the common duct, producing cholangitis or marked cholemia, and for infectious cholecystitis.

Ideal Cholecystectomy or Cholecystentisis, consists in evacuating the gall-bladder, and closing the wound without drainage. It is not an operation generally chosen, and the indication for its being done is infrequent. The mortality is very high, being about 18 per cent.

Cholecystectomy, an operation which consists in the removal of the entire-gall-bladder, is finding favor with many surgeons. Kehr, Gibson, Murphy, Mayo, and others being special advocates for this operation. This is a more difficult operation, and one in which the mortality is nearly twice as great as in Cholecystomitis, and is indicated when a stone is wedged tightly in the common duct and hydrops or empyema has resulted.

The operation for draining the common duct or relieving it of an obstruction is called Choledochotomy. In this case the common duct is opened at or near the obstruction, and drained through the abdominal wound. The mortality of this operation is given from 37.6 per cent of cases collected by Kehr to nothing in those reported by Drs. Mayo.

DISCUSSION.

Dr. Welch heartily endorsed the sentments of the paper, and urged upon the general practitoner the necessity for correct diagnosis of all gall-bladder troubles. He said that he believed that all gall-bladder diseases gave patient some trouble in one way or another, and related a case of a woman who had suffered indefinite symptoms for years—not enough, however, to necessitate consulting a physician. Finally, one day while turning the wringer, she felt a tearing sensation in her side, as of something giving way. Three days later, sent for physician, and was taken to the

hospital, where operation discovered a ruptured gall bladder, at least three pints of bile being cleared out of abdominal cavity, and intestines matted together from a general peritonitis; this was seven days after the rupture. The doctor thought that many cases of gastritis, gastric ulcer, etc., owed their origin to gall bladder involvement, and that exploratory operation was indicated in these cases; that medication was of no permanent value, except for relief of pain for the time being.

Dr. Hughes made a strong plea for early operation in all cases of suspected cases of gall-bladder involvement, and thought that a large number of cases were allowed to go on until too late to do them any good; that when neglected the blood became so saturated with bile that it would not clot, there being a constant oozing of blood, resulting in fatal hemorrhage. In his technique he said it was not necessary to attach bladder to abdominal parietes, but that it needed only to be stitched to peritoneal surface, and drainage tube introduced for two or three days; he protested against the habit of removing gall-bladder, unless the middle coat was involved, unnecessarily to remove it, unless seriously affected. The doctor cited a recent case of obstruction of bowel from gall-stones, one measuring four inches and another six and one half inches in circumference.

Dr. Munn thought that the mortality should not exceed one half of one per cent. He endorsed and recommended the use of the sand bag under the back of the patient, which caused intestines to gravitate lower into abdomen, making easy manipulation of gall-bladder and ducts. Reported case of man of 45 to 50, operated upon at Stormont Hospital some months ago. The man gave a history of some temperature, however, felt pretty well. Upon a thorough examination case diagnosed as a probable empyema, and operation recommended, which disclosed an extensive mass of adhesions and bile mixed with pus about location of gall-bladder. The mass was removed and site carefully washed out, and patient put to bed. We had fully expected to find twenty five or thirty gall-stones. We got to wondering what that material was which was removed, and examined it very carefully, and found thirty gall-stones.

Dr. Glasscock thought that this was a surgical disease, yet that there were many cases in which there was no call for operative measures; for instance, there might be an attack of hepatic colic, and where stone was small it would pass, and there be no further trouble for years—perhaps might never occasion a second attack. Where there was no obstruction of ducts stones might remain impacted in the gall-bladder indefinitely. He cited an interesting case where there was obstruction of duct,—the man being too weak for operation. The duct remained closed for four months, and then voluntarily opened up. Had an attack a few months later, but now, after an interval of seven or eight years, has had no further trouble. Another

case was of a man who dropped dead with heart disease, who never during life gave any evidence of gall-bladder trouble. Autopsy revealed 760 stones.

DE. DUVALL pointed out one of the "terminal routes" of gall-stones cases as being diabetes mellitus, and cited two cases under his care, who have for a number of years suffered recurrent attacks of gall-bladder trouble, and who now show very marked diabetes as terminal symptoms; that this is one of the things to be looked out for.

THE COUNTRY PRACTITIONER AS A SURGEON.*

B. R. RILEY., M. D.
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That the country practitioner should pose as a surgeon seems ludicrous to the larger part of the profession today, so great has been the retrograde change, which has almost imperceptibly taken place. The trend of the present surgical status is to decrease the ability of the one, and increase that of the other. We are educating the laity to lose all confidence in their family physicians and seek the advice of some hospital attache for every ailment, because of his "larger experience." The practice of medicine is a broad subject, and all of its branches cannot be fully grasped in detail by any one mind. So of necessity there must be specialists but just where the specialty begins and general work ends is a question that must be answered by each individual practitioner for himself. At present the lines are being drawn too closely and the tendency is to make the general practitioner in the country a weak man, at least in a surgical way.

That the average country practitioner is a fair diagnostician can hardly be disproved, and that his general practice makes him an all around man, cannot be denied, yet so thorough has been his so-called education in a surgical way, that he is willing to approach a case from all sides except the surgical. So thorough has been the training of the public, that if the general practitioner has a case at all, it either belongs to the specialist or is a case where some of the more elegant preparations of some pharmaceutical house alone are required. Almost all cases of surgery are given the glad hand on their departure for the city; because the country practitioner openly acknowledges the superior ability of his city brother. Right here I want to say that the city brother deserves this esteem, because his experience has

*Read before the Kansas Medical Society at Wichita, May, 1905.

been greater, since his knowledge of surgery has been added to by the cases sent him by the country practitioner.

The country practitioner has been so busy looking after the interests of medical cases that he has not even attempted a review of surgery from any standpoint. There are cases where the people are too poor to go to the city to receive surgical attention, and today those cases are neglected. Given a case of appendicitis in a very poor family, and the general practitioner in the country tries to resurrect a treatment for a condition that one author says "There is no medical treatment," and after a steady advancement toward a fatal end bemoans environments, public opinion, etc., and watches death do its work without the least intimation of the city hospital, etc.; because he knows the financial, as well as the physical condition of the patient will not stand it. But if the case is in a well-to-do family the patient is advised to go at once to the city and receive surgical care for his condition; if the case be an acute attack, and yields to treatment, his patient will never consent to go during the interval between attacks; and when a second attack takes place, you hustle him to the station, place him on the train, and proceed to ship him to the city, and during the trip to the hospital from home, you have every chance of trouble from traumatism. Too many cases of appendicitis are sent to the hospital. When you look at the ill effects of travel, you certainly ought never to send a case of appendicitis to the city, except during the interval. If the country practitioner feels himself incompetent it is his duty to have the surgeon brought to his case of appendicitis instead of sending it to the city.

Strangulated hernia treated by the country practitioner, receives enough traumatic injury, generally, to kill before even an anesthetic is given, and from the beginning of the administration usually the injury to the parts is too great before complete anesthesia has taken place. The American Text Book of Surgery says that ten minutes is long enough to use taxis under complete anesthesia; but the country practitioner usually reads it "ten hours." There are so many cases of hernia throughout the country, who from year to year continue to burden themselves with trusses, and the country practitioner seldom, if ever, tells them of a radical operation for the cure of a condition that he knows can never be cured by truss wearing. So low is the mortality in these cases that operation for the radical cure should be advised by all, in almost all cases.

The country practitioner usually reduces a dislocation, or treats a fracture, and seldom, if ever, loses a great deal of sleep over the worst cases. Yet the city surgeon will approach a dislocation or fracture with the one thought, that it is a walking advertisement of either inferior or average ability, and actually loses more sleep over a simple fracture than over an abdominal section. Thus the country practitioner assumes the burden

of responsibility that seems to rest heavy on the city surgeon. Why? The public is accustomed to have fractures reduced at home.

If he accepts the responsibility and takes the chances that bring little money or prestage and may bring criticism and damage suits, why not attempt operations that bring money and fame with less chance of disgrace. The day is dawning when a country practitioner will refuse longer to act as shipping clerk for his proud city confreres.

Many a case of minor surgery is neglected until the damage done is too great to be easily repaired and thus becomes a case for shipment. The country practitioner who gives no thought to surgery other than to bemoan his environments and send his cases to the city, is the rule not the exception. Regarding environments, I wish to quote Ochsner's work on clinical surgery; after advising hospitals as the place for surgical work, he says:

> As a matter of fact there is but one point to be borne in mind in the arrangement of a room for operating, namely, Infection, and that no wound infection is to be considered except from contact, not that infection from the air is absolutely impossible theoretically, but that practically a wound remains aseptic unless infectious material has been placed in it by dirty hands, dirty instruments, appliances or sponges, ligatures, sutures or dressings, unless the infectious material existed in the patient's body at the time of operation." and continues with this statement, "But in any case in which a clean surgeon with clean assistants and clean appliances, operates on a clean patient, it can be expected with a fair degree of certainty that the wound will remain aseptic, no matter what the surroundiings may be."

That our environments are bad is true; but with all due respect to the hospital and city surgeon we can make the average home as sterile and our own hands as surgically clean, and if capable we can with impunity attempt the same work with the same assurances of success that the operator in the city has. We have even better chances for success by having, as a rule, patients who are in the beginning physically able to stand shock and are good subjects to withstand any ordinary complications in a surgical way. It may be true that certain cases belong to specialists, but it lies with the country practitioner to say whether it is so of surgical cases whether he send all of his major operations to the city or not.

Each country practitioner must be the judge as to where the specialist begins; and that decision must be arrived at conscientiously, leaving in the dark, public opinion. No man should allow public opinion to debar him from his duty. We should not overlook our duty toward our patient, be he rich or poor, and should ever hold before us the one thought—competency. We should not let conservatism take the place of common sense. Conservative surgery is all right but the country practitioner is too prone to neglect or omit and call it conservatism, when in reality it is as much mal-practice to neglect as it is to do wrong in the first place.

Unless there is a radical change, it will only be a short time until surgery will be an extinct feature of country practice, and if a change is to be made, it must be brought about by the country practitioner. He must do more surgery and competency is to be obtained by study and post graduate work. Every two or three years should find us spending our vacation at some post graduate school and visiting the hospitals and preparing ourselves for work. After we have become competent we can more easily overcome the few drawbacks of enviromnent and let public opinion change to suit the occasion.

Speaking of the country practitioner from a surgical standpoint, we often wonder if the city surgeon does not look upon him as the soldier did "Dri" in Bacheller's work, "Dri and I," and think that he needs rest, etc. I think it time for the country practitioner to go on guard duty without the countersign and halt every case of surgery if he be competent.

DISCUSSION.

Dr. Hughes agreed with the writer of the paper that competency was the important point to be considered from the country practitioner's standpoint, and that as a rule the country practitioner was better equipped than his city brother. He spoke of a country practitioner of thirty years ago who had a case of compound fracture of the humerus and dislocation of the shoulder joint. He reduced the dislocation and dressed the fracture in his customary manner, with good results. Twenty-five years after that the question came up as to what to do in such cases, and the procedure was discussed. The old practitioner got up and said that twenty-five years ago he did not know enough to do anything other than in this way. The doctor thought that it should be a question of conscience, as well as competence, and that the country practitioner should be able to handle the average surgical case without having to send them to the cities for operation.

Dr. Sawhill commended the paper, and agreed with Dr. Hughes that the country practitioner should be able to do the average case of surgery that came to him; however, that the man who was doing all kinds of work was not apt to be prepared to do all the most intricate work of surgery, and that such work should be sent to the man doing special work in those lines. He mentioned a case of appendicitis upon which he operated with good results, and thought that every practitioner should be able and ready to do any and all such emergency operations, where the life of the patient was endangered by delay.

Dr. Blaisdell advised the equipping of ourselves in the best possible manner to be AS GOOD DOCTORS AS POSSIBLE, NOT SURGEONS, and then to let conscience and capability dictate how far we should go in any line. He said we should not be like the young doctor who wrote to a surgeon friend in the city and told him he wanted to witness an ovariotomy. The friend wrote back and set a certain day, and he attended. "I wanted to see this operation" said he, "because I have a patient who needs an ovariotomy. I want to see you do it, so I can perform one." Men are operating in the country as well as in the city, and are working out their own advancement. The doctor brought out the idea that "Necessity is the mother of invention," and that where a practitioner

was isolated he had to devise ways and means many times, but that he should not hesitite to call into use local hospitals, if occasion warranted it, rather than sending patients to distant ones.

Dr. Welch thought it but a question of experience and ability, and the power of guaging one's own capabilities, as to whether he should take the risk and responsibility of operating, or of sending to some one else; that many complications were liable to arise where the inexperienced man was liable to reach his limit, and get into trouble.

Dr. Biddle thought it absolutelv impossible and beyond the power of the general practitioner to also be an expert surgeon, no man could be expert in everything; that it was a generally conceded fact that the expert surgeon was not a good general practitioner; that it was all right to do minor surgery, but that the work should be divided up, and capital operations turned over to the surgeon.

Dr. Axtell.—It seems to me that most men have solved the problem when they say that it is a question of experience and ability. No one can visit our medical schools today, and see and hear the classes, without knowing and realizing that we are sending out men today much more competent than those of twenty or thirty years ago. They are better educated than we old fellows were years ago. There is no question but that surgery is being well done with our later day technique and improved methods. I want to speak of the after care of patients,. There will be many more lives saved if you have a competent man on the case after operation. Experience and ability count here as much as anywhere else. Now if the country practitioner has much riding and country practice to do, he has not the opportunity to get the practical experience necessary for the care of these cases, nor the time to attend to them properly. If you had a case of appendicitis you would go to the man who made a business of that kind of work; other people are about the same as you, and that is what they are going to do.

THERAPEUTIC ACTION OF CHEMIC SALTS.*

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Chemic salts effect therapeutic action in two very distinct ways. The first is salt action, the second ion action. Some exert their action in one way, some in the other and some in both ways.

It is not the intention of this paper to go minutely into all the various therapeutic effects of chemic salts, but rather to consider the subject in a general way, citing principles and such examples as will illustrate the subject; detail would occupy several sessions of the society.

Taking up first the salt action of these substances we must consider the general physical properties of chemic salts.

*Read before the Shawnee County Medical Society, June 5, 1905. This paper lays no claim to originality. It is adapted, compiled and quoted from various sources, notably from "A Text Book of Pharmacology" by Torald Sollmann, M. D., Ass't Prof. of Pharmacology, etc., Medical Department of Western Reserve University, Cleveland, Ohio

1. Hydrodiffusion.

The hydrodiffusion of salts is similar in principle to the diffusion of gases. If two gases of differing, perhaps widely differing densities, are placed in one container, no matter if the heavier be carefully placed at the bottom and the lighter on top, there will be an interchange of molecules and ere long the gases will be uniformly mixed. If an aqueous solution of any salt be put in a vessel and water be carefully placed upon the top of this solution so as not to mix the two strata, there will be such an interchange of molecules of the salt and the water that the contents of the vessel will ultimately become a uniform solution of the salt. This action will take place more slowly than with the gases, but the result is the same. The explanation of this phenomenon is that the molecules of salt in the solution are continually moving to and fro. Some pass into the upper strata of water, whence continuing their to and fro motion a part return to the lower stratum but some remain in the upper. The continuation of this process results ultimately in an equal distribution of the whole salt in the total water.

2. Osmosis.

Hydrodiffusion is at the foundation of osmosis. If the salt solution and the water be separated by a membrane which admits the passage of both the salt molecules and the water molecules, the hydrodiffusion will go on to completion through the membrane, though more slowly.

This property by which liquid and crystaline substances in solution pass through porous septa is called osmosis.

Manifestly the quality of the membrane controls osmosis. If both the solvent and the solvend pass with equal facility osmosis will be entirely free in both directions. Such membrane is called permeable. But certain membranes permit the passage of one sort of molecule (usually the solvent) and do not permit the passage of the other (usually the solvend). Such membranes are called semipermeable. This property of the membrane modifies materially the process of osmosis and develops osmotic pressure or osmotic tension, or in other words force with which certain substances push through the membrane. This, under favorable circumstances, is a great and unexpected force. It is not practicable to measure this force in living membranes, but certain experiments are very suggestive. Certain vegetable cells will burst when placed in water, a bladder filled with salt solution and immersed in water will burst, both depending on osmotic pressure or tension. The phenomena of osmotic pressure in not confined to natural membranes, vegetable or animal. Indeed for experimental purposes, artificial membranes are preferable and are formed by filling a fine grained, unglazed porous porcelain pot with a solution of potas-

sium ferro-cyanide and immersing it in a solution of copper sulphate. The two solutions meet in the walls forming a film of copper ferro-cyanide which constitutes a semi-permeable membrane (permeable to water and not to sugar) supported by the walls of the porous cup. When such a membrane bearing pot, fitted with a tight stopper and a graduated expansion tube, is filled with a solution of cane sugar and immersed in a vessel of water, the osmotic pressure developed by the water pushing through to get at the sugar solution will raise a column of water 66 feet*

Furthermore the osmotic pressure bears a fixed ratio to the concentration of the solution. A one per cent solution gives in round numbers a pressure of 500 millimeters of Hg.; a two percent, 1000 millimeters; a four per cent, 2000 millimeters. Of course it is impossible that any substance introduced into the body can develop an osmotic pressure anything like that which can be shown in the laboratory where conditions are arranged to facilitate and conserve the phenomenon. But these laboratory experiments show what a great force is evoked, for good or ill, even in the administration of an ordinary dose of salts.

Each chemical substance has its own atomic equivalent or molecular weight. A gram-molecule is the atomic or molecular weight expressed in grams. The molecular weight of hydrochloric acid, for instance, is 36.4. A gram molecule of hydrochloric acid is 36.4 grams. A gram-molecule hydrochloric acid solution contains 36.4 grams of pure acid diluted to make one litre. Now, if two solutions having the same molecular concentration, (that is, having their concentration proportioned to atomic weight and called equimolecular,) are separated by a semipermeable membrane, impermeable to the solvents, there will be no passage of liquid through the membrane, no osmotic tension. Such solutions having the same molecular concentration and osmotic tension, are called isotonic to each other. In general physiological work, isotonic refers to comparison with the blood.

In illustration, the molecular weight of sodium chloride is 58.4 and of potassum chloride is 74.4, hence a 5.84 per cent solution of sodium chloride and a 7.44 per cent solution of potassium chloride, will be isotonic. If separated by a permeable membrane there will be no osmosis or exchange of molecules, the two solutions are in equilibrium. If, however, one solution has a higher molecular concentration than the other, water will pass from the weaker to the stronger until both have the same molecular cencentration. In such case the stronger solution is called hyperisotonic and the weaker hypoisotonic. Both are called anisotonic. Another class of membranes most common in the body and of most practical importance, are freely permeable to water, partly permeable to salts but more permeable to some salts than to others and are termed partly semipermeable. With

such a membrane the osmotic results will lie between that of permeable and semipermeable membranes. Thus we have:

1. Permeable membranes, freely permeable to solvent and solvend.

2. Semipermeable membranes, freely permeable to one sort, usually solvent, impermeable to another, usually the solvend.

3. Partly semipermeable membranes freely permeable to water, but more permeable to some salts than to others. This type of membrane is the most common in the body. Illustrating this third, or partly semipermeable membrane, if we have a membrane perfectly permeable to water and to sodium chloride and entirely impervious to proteids, separating solutions of these substances, the sodium will be diffused until the two solutions of this salt be of the same concentration; but the proteid will remain on its original side. With this kind of a membrane the weakest proteid solution would be hyperisotonic to the strongest solution of sodium chloride. Or, again, if a membrane wholly permeable to water and twice as permeable to sodium chloride as to sugar, separate solutions of these substances, these solutions will diffuse but the molecules of sodium chloride will pass twice as rapidly as the molecules of sugar and the sugar solution will become hyperisotonic to the other, but in time the sugar itself will be equally distributed and the two solutions become isotonic.

It is by means of the differing permeability of their walls to differing substances that the cells are able to maintain their integrity even under ever changing conditions of environment. All cells are comparatively impermeable to proteids, while their permeability to other substances varies materially in different parts. For instance the cells of the intestinal walls are impermeable to sulphates, which pass the kidneys readily. If a membrane be impervious both to solvent and solvend, there can be no osmosis and no osmotic pressure.

LAWS OF OSMOSIS.—SUMMARY.

1. Solutions separated by a membrane permeable to the solvent, tend to an identical molecular composition.

2. If the membrane be perfectly permeable to the solvent and the solvend the exchange of molecules will take place without change in pressure or volumn.

3. If the membrane is less permeable to the solvend than the solvent, an increase of liquid or an increase of tension will occur in the stronger solution.

4. If a membrane is differently permeable to one solvend than to another, equimolecular solution of the less diffusible substance will be hyperisotonic to the more diffusible.

5. The osmotic action of chemic salts is essentially a physical action.

(To be continued.)

BOOK REVIEWS.

Clinical Treatises on the pathology and therapy of disorders of metabolism and nutrition by Prof. Dr. Carl von Noorden, Physician in chief to the city hospital, Frankfurt-am-Main. Authorized American edition translated under the direction of Boardman Reid, of Philadelphia.

PART VI, DRINK RESTRICTION, particularly in obesity, by Prof. Carl von Noorden and Dr. Hugh Salmon. Cloth, small 8 vo., pp 86. New York, E. B. Treat & Co., 1905. Price 75c.

In this volume Dr. Solomon and Prof. Von Noorden discuss the history of drink restriction and relate their experience with patients. The real difficulty in the matter is to obtain a criterion by which to judge the effects of the treatment. The examination of the blood as to the number of the of corpuscles, the percentage of hemoglobin, the specific gravity, and the freezing point have all been employed without showing and results that correspond to the general therapeutic effects. While Von Noorden employed all these in his tests, he paid more attention to the weight of the patient and the combustion of oxygen, the latter because Oertel and Schwerninger (the man who has that tremendous political pull at Berlin and makes himself so obnoxious to his scientific colleagues) have maintained that when the fluid in take is restricted then the fat of the body is split up to form water and thus the obesity disappears. Our authors found however, that it was not the fats but the proteids of the body which were split up by the water restrictions--but even that was very slight. Further, the weight was but slightly decreased. All this hardly paid for the agonies of thirst and loss of appetite through which the patients passed in the process of the "cure."

The real therapeutic value, according to Von Noorden, of drink restriction lies in the fact that it lightens the work of the stomach and heart. It is therefore of value in heart diseases, gastrectasis, and in obesity to that extent (because in obesity these organs are generally overtaxed.) In chlorosis the thirst cure is a good initial treatment for the iron. In hepatic cirrhosis, it is of occasional value.

The translation is well done and the booklet well gotten up. The reading of these well worked out contributions cannot be otherwise than helpful.

Lectures to General Practitioners on the Diseases of the Stomach and Intestines with an account of their relations to other diseases and of the most recent methods applicable to the diagnosis and treatment of them in general; also the gastro-intestinal "clinic," in which all such diseases are separately considered, by Boardman Reed,

Professor of Diseases of the Gastro-intestinal Tract, Hygiene and Climatology in Temple College, Philadelphia, illustrated. New York, E. B. Treat & Co., 241-243 West 23rd street, 1904. Price $6.00.

If Ex-President Reynolds' dictum be true, that it is worth while to buy a book even if one get only a single idea out of it, then this book is worth buying for in its discursiveness it offers many points of great practical value. The author writes for the general practitioner and discusses matters and things in a charming conversational way. Thus he takes up the matter of vibratory stimulation, massage, electricity, and the other late suggestions in therapeutics and thus affords the reader a check on the literature on these subjects which has hitherto emanated chiefly from the promoters of the various kinds of apparatus employed. The book is not the product of an "authority" but rather of a practical physician who is more interested in curing his patients than in establishing any scientific dictum.

We have found the book refreshing because it cuts loose from many of the time honored maxims of the gastrologists. Let me quote some useful statements.

"But let me warn you to place no faith in the pharmaceutical monstrosities which are said to contain pepsin combined with pancreatin, with which it is positively incompatible, nor those in which it is combined with wines or any preparation of aclohol which, except in the weakest dilutions, interfere with its action."—Page 347.

"Certain writers have asserted that an alkali given before eating always increases the secretion of H Cl, and given after meals lessens it. This is not true. This piece of misinformation has been handed down from the time of Sydney Ringer at least."—Page 351.

The author makes a valuable distinction between sthenic and asthenic catarrhs and shows how the treatment must be opposite. His hobbies are intragastric electricity and massage--and a valuable team they make.

STATE BOARD QUESTIONS.

SURGERY.

April 25, 1905.

1, Name four primary forms of club foot. 2, Give etiology, diagnosis and treatment of traumatic gangrene. 3, Give nomenclature, diagnosis and treatment of the several varieties of abdominal hernia. 4, What con-

dition would lead you to pronounce the case appendicitis? 5, A man is shot through the right lung with a 32 revolver. How would you manage the case and the probable resulting complications. 6, Describe a subglenoid dislocation and your method of reduction. 7, In the local treatment of chronic ulcers of the leg, at least three leading indications present themselves. Name them. 8, Lachrymal fistula—give cause, symptoms and remedy. 9, Name some causes, symptoms and treatment of caries of the bone, also prognosis. 10, After reducing a fracture of the shaft femur, between trochanter minor and junction of the upper with the middle third, in what position would you dress the limb, and why?

July 12, 1904.

1, Describe the varieties of talipes. 2, Describe the indications for and the technique in tracheotomy. 3, Describe the operation of median and suprabubic lithotomy. 4, When is excision of a joint advisable and what are the conditions of success? 5, Describe and treat a case of Lumbar abscess. 6, Describe and treat a fracture of the patella. 7, Describe and treat a fracture of the femur external to the capsular ligament. 8, What do you understand by tertiary syphilis? What are some of the diagnostic points, and what are the principal symptoms that have appeared at various times from the initial lesion to the present stage. 9, What are the indications leading you to suspect injury to the "isle of Reil"? 10, Describe the local and constitutional symptoms and treatment of traumatic gangrene.

October 11, 1904.

1, Diagnose and describe treatment of fracture of acromion process. 2, Diagnose and describe treatment of a case of Colles fracture. 3, Dislocations are characterized by a certain train of symptoms. Name six of them. 4, Differentiate between inguinal hernia hydrocele and varicocele. 5, Describe surgical operation for the cure of fistula in ano. 6, Describe surgical treatment for empyema. 7, Give diagnostic symptoms of hemorrhage from middle meningeal artery and treatment for same. 8, At what point would you tap for ascites; for hydrothorax? 9, Distinguish between concussion and compression of the brain. 10, Name principal cause, symptoms and treatment for tetanus.

MATERIA MEDICA.

July 12, 1904.

REGULAR.

1, What is lactic acid and its uses? 2, What substances are incompatible with antipyrine? 3, What are the physiological actions of cannabis indica? 4. What is ether? 5, What are the preparations and doses of stramonium? 6, What are the uses of hyoscyamus and alkaloids? 7.

What is duboisia? 8, Name the antispasmodics. 9, What are antispasmodics? 10, What is the physiological effect of tannic acid?

ECLECTIC.

1, Define infusion, decoction, emulsion, powdered extract, solid extract, fluid extract, tincture, and specific tincture. 2, What do you understand by diaphoretics, antipyretics, anthelmintics. antiseptics, cholagogues and hydragogues? Name one remedy in each class. 3, Prepare a mustard plaster; a fomentation of ulmus fulva. 4, What are the therapeutic properties of libradol, juniper, pomade, Fowler's solution, acid solution of iron nephrosin? 5, Give the scientific names for black snake root, wahoo, buglewood, jimson weed, saltpeter, calomel, corrosive sublimate, hops, slippery elm, Indian hemp, pleurisy root, Peruvian bark. 6, Name the different products obtained from Peruvian bark, the Chinese poppy, soda, potash, deadly nightshade. 7, Would you prescribe eriyigium aquaticum and rhus aromatica at the same time in any case. Why? 8, What is an A. C. E. Mixture? 9, What is the official strength of tr. iodine. 10, Name the green tinctures and state why so called.

HOMEOPATHIC.

1, Explain the law of similars and give the Latin formula. 2, Define a nosode and give an example. 3, Is the laws of similars the only law of cure? If not describe others. 4, What is the definition of the word "polychrest"? 5, Differentiate between bryonia and sulphur in diarrhea. 6, Give the leading characteristics of a proving of (a) pulsatilla, (b) arsenicum, (c) rhus tox. 7, Give five prominent sypmtoms for baptisia in typhoid fever. 8, What are the typical constitutional conditions requiring calcaria carb? 9, Give indications requiring merc. cor. in Bright's disease. 10, Differentiate between phosphorus and antimony tartrate in pneumonia.

October 11, 1904.

REGULAR.

1, In what diseases is opium used principally? 2, Name the excitomotors. 3, What are the preparations and doses of conium? 4, Is ether ever used as a cardiac stimulant? 5, How should poisoning by digitalis be treated? 6, What are the medicinal uses of ipecac? 7, What substances are incompatible with belladonna? 8, What are the effects, uses and doses of calcium chloride. 9, What are the preparations and doses of the gold salts? 10, Name the mineral tonics.

ECLECTIC.

1, Give the common and official name of macrotys, its dose, preparition and specific indications for its use. 2, Give specific indications and conditions for the use of sulphite of soda, phosphate of soda, and dose.

3, Give the dose of bryonia and specific indications for its use. 4, What is compound stilingia liniment and its use. 5, Give the uses of compound neutralizing cordial and its composition. 6, Give the use, dose and specific indication of jaborandi. 7, Give the specific indication for the use of veratrum viride. 8, Give botanical description of lobelia inflata and specific indications for its use in every condition you would use it in. 9, Give the specific indications for the use of sulphide of calcium and the doses you would use it in; also of sulphur. 10, Give specific indications for the use of permanganate, chlorate, acetate, iodide and bromide of potassiums.

HOMEOPATHIC.

1, Give an outline of a proving of sulphur. 2, Describe a case of intermittent fever requiring enpat. perf. 3, Differentiate between bryonia and sulphur in diarrhea. 4, Give an outline of berberis vulg. 5, Differentiate between belladonna and hyoscyamus in mental, throat and stomach symptoms. 6, Describe the toxic effects of arsenic on the circulatory and digestive tracts. 7, Name antidotes to arsenic, strychnine, aconite, and belladonna. 8, describe a case in which you would prescribe ambra. 9, Name pathological conditions in which cimicifuga rac. is indicated. 10, What do you understand by polychrests?

April 25, 1905.

REGULAR.

1, What effect does disease have upon the influence of medicines on the system? 2, What are the physiological actions of pepsin, pancreatin, and ingluvin? 3, What medicines are incompatible with the iron preparations? 4, What substances aid the absorption of phosphorus? 5, What are the symptoms and treatment of acute arsenical poisoning? 6, What is chloral? 7, What are the official bromides? 8, Is antipyrine a mydriatic anodyne? 9, What are the effects and uses of valerian? 10, What are depresso-motors? Name the members of this group.

ECLECTIC.

1, Give botanical description, habitat, dose and specific indications for veratrum viride. 2, What are diuretics? Name six and give the specific indications for each. 3, Give the common and official names of hydrastis, its different preparation, dose and specific indications for its use. 4, Give dose of nux vomica and indications for its use. 5, Common and official names of black snake root. In what diseases is it especially indicated? Preparations and dose. 6, Give botanical description of belladonna, its preparations, and specific indications for its use, and dose. 7, What remedies would you give in a case where there was increased respiration, increased temperature, pulse big, full and bounding, sharp, lacinating pains in pleura,

face flushed and red, eyes bright and pupils contracted? 8, What is asepsin, and give its use? Also give common and official name of phytolacca, dose, and specific indications for its use. 9, Give indications for use of acids and alkalies. 10, Give indications and dose of (a) apocynum; (b) apis mellifica; (c) rhus tox. and boracic acid.

HOMEOPATHIC.

1, Distinguish between sulfur and nux vomica in bowel trouble. 2, Name principal remedies for typhoid fever. 3, Differentiate between phosphorus and bryonia in pneumonia. 4, Differentiate between verat alb. and arsenicum in cholera. 5, Differentiate between verat. viride and aconite in fevers. 6, Differentiate between merc. sol. and podophyllum in malarial troubles. 7, Give the symptoms common to both belladonna and hyoscyamus. 8, What would you prescribe for a tight cough, with rawness behind sternum, and a general constricted feeling of the chest. 9, Give an outline of a "prooving" of lycopodium. 10, Write all you know about echinacea.

July 12, 1904.

ECLECTIC.

1, In typhoid fever, (a) name three points in etiology, (b) four symptoms and (c) name six common remedies in its treatment. 2, Give specific indicatins for the six remedies you mentioned in question No. 1. 3, As an external application in pneumonia, which of the following do you prefer: Mush jacket, antiphlogistine, librodol, or compound emetic powder and lard? Tell why in five lines. 4, Name and give specific indications for six remedies to be thought of in the treatment of renal diseases. 5, Name five points in diagnosis of arthritis of the knee joint. 6, Give treatment for arthritis. 7, How would you treat a case of appendicitis if brought to you in its incipiency? 8, Name eight remedial means or medicines to be thought of in a case of chronic gastritsi and tell when each is indicated. 9, Name three common causes of dropsy. 10, Mention briefly the conditions which will cause you to give (a) mur. acid, (b) echinacea, (c) sulphite soda, (d) kali. chlor., (e) baptisia.

HOMEOPATHIC.

1. Differential diagnosis between renal and hepatic calculi and appendicitis. 2, Give differential diagnosis between hemorrhage of the lungs and and stomach. 3, Give the diagnosis and treatment of acute cystitis. 4, Differentiate between acute entertitis and colititis and give treatment of each. 5, Give the varieties of peritonitis and symptoms and treatment. 6, Give the diagnosis and treatment of acute mastoiditis. 7, Give the etiology, symptoms and treatment of acute mastitis. 8, Give the sym-

ptoms and treatment and prognosis of nasal diphtheria. 9, Give the symptoms and treatment of empyema of the mastoidantrum. 10, Give the diagnosis and treatment of aneurism of the arch of the aorta.

REGULAR.

1, Diphtheria diagnosis, prognosis and treatment. 2, Purpura diagnosis and treatment. 3, Give diagnosis, prognosis and treatment of acute bronchial catarrh. 4, Write a page on the sounds of the heart. 5, Tell what abnormal sounds of the heart indicate. 6, Give diagnosis and treatment of acute peritonitis. 7, Name the chronic diseases of the liver. 8, Give the different steps in the examination of the urine. 9, Write a page on epilepsy. 10, Chorea diagnosis and treatment.

THEORY AND PRACTICE.

October 11, 1904.

ECLECTIC.

1, Name and describe a group of symptoms known as "typhoid." 2, Give the remedies and their indication that will counteract those conditions. 3 Define specific medication and specific diagnosis. 4, Give the indications calling for quinine, nux, iris, echinacea, eryngium, gelsemium, and blackhaw. 5, Diagnose and treat a case of cystitis, ovaritis and uterine colic. 6, Diagnose and treat a case of summer diarrhea in a child. 7, How do you use the various coal-tar productss? 8, What is meant by determination of blood to a part? 9, Name five remedies that act directly upon heart and give their specific indications. 10, Diagnose and treat a case of acute articular rheumatism.

HOMEOPATHIC.

1, Give symptoms, diagnosis and treatment of acute bronchitis. 2, Give etiology and treatment of earache. 3, Differentiate between heatstroke and sunstroke, and give treatment in each. 4, Give symptoms and treatment of "impetigo contagiosa." 5, Differentiate bteween acute nephritis and acute cystitis. 6, Describe in detail the symptoms and treatment of gonorrhea conjunctivitis. 7, Give symptoms and treatment of cerebrospinal meningitis. 8, Describe symptoms and give treatment of pyelitis. 9, Describe in detail the symptoms and treatment of peritonsillar abscess. 10, Differentiate between intercostal neuralgia, pleurodynia, and pleurisy.

REGULAR

1, Define dysentery and give treatment. 2, Define jaundice and give treatment. 3, Diagnose and give treatment for acute cystitis. 4, Give symptoms of appendicitis. 5, Give treatment of hemoptysis. 6, Differ-

entiate appendicitis from diseases of the ovary. 7, Give diagnosis and treatment of diphtheria. 8, Define cyanosis; what does it indicate. 9, Name some results of syphilis. 10, Give treatment of syphilis.

April 25, 1905.

ECLECTIC.

1, Name five agents which influence the blood and give the pathological condition calling for each. 2, (a) What are the symptoms of dysuria? (b) What are the remedies indicated for its relief? 3, Diagnose and treat a case of croup. 4, To what do the eclectic physicians of the country attribute their success? 5, Name the remedies used in typhoid conditions. 6, (a) Treat a case of snake bite, (b) give your theory for such treatment. 7, Give diagnosis and treatment of puerperal septic infection. 8, (a) Differentiate suppression and retention of urine. (b) treat each. 9, Name four remedies that are prominently indicated by the appearance of the tongue. 10, (a) What is your belief in regard to cathartic remedies? (b) Name five, (c) tell how they act and when contraindicated.

HOMEOPATHIC.

1, Describe the normal respiratory sounds and movements. 2, Describe the method of physical examination of the chest. 3, Give differential diagnosis between chronic rheumatism, arthritis deformans and gout. 4, Define gastralgia, give causes and symptoms, diagnosis, prognosis and treatment. 5, Define and give causes, pathological anatomy, symptoms, diagnosis, prognosis and treatment of sclerosis of the liver. 6, Define, give causes, pathological anatomy and symptoms of pyelitis. 7, Define, give causes, symptoms, diagnosis, prognosis, and treatment of acute uraemia. 8. Define, give causes, pathological anatomy and treatment of acute catarrhal pharyngitis. 9, Give causes, symptoms, diagnosis and treatment of vertigo. 10, Give causes, symptoms and treatment of cholera infantum.

REGULAR.

1, Define acute pericarditis. Give symptoms. 2, Give the normal quality of urine. Give test for albumin, for sugar, and test for uric acid. 3, Amyloid kidney—definition; diagnosis. 4, Chlorosis—symptoms; treatment. 5, Muscular rheumatism—symptoms; treatment. 6, Hydrothorax —definition; treatment. 7, Migraine—definition; treatment. 8, Spinal meningitis—symptoms; treatment. 9, Locomotor ataxia— definition; diagnosis. 10, Scabies—definition; treatment.

NEWS ITEMS.

Dr. Frank Eckdall has been appointed local surgeon for the Santa Fe System in Emporia.

Dr. H. L. Cornell and family, who went to Burmah in October, 1903, have returned to Burlingame.

Dr. Chas. H. Lerrigo has been appointed a member of the State Board of Health, vice Dr. Chas. Lowry, deceased.

The American Public Health Association will meet in Boston September 25-29. Dr. F. F. Westbrook, of Minneapolis, Minn., is president.

Dr. Lot D. Mabie, Kansas City, has been appointed county physician of Wyandotte County, vice Dr. J. Frank Hassig, Kansas City, resigned.

Dr. Seth Grant, a graduate of the department of medicine of the University of Michigan, died suddenly at Auborn, Kansas, August 5. Age 72.

W. Flemming, M. D., professor of anatomy at Kiel, noted for his pioneer research on cell development and pathology, died at Kiel, August 5, aged 62.

Dr. Robert R. Teller, Arkansas City, who was recently operated on for cancer of the throat in Winfield has been discharged from the hospital, recovered.

P. Schech, M. D., professor of laryngology at Munich, died July 1, aged 60. He bequeathed $500 to the local endowment for the widows and orphans of physicians.

Charles Lowry, M. D., Pennsylvania, 1863, for two years secretary of the Kansas State Board of Health, died at his home in Topeka, July 11. from kidney disease, aged 64.

Dr. Lewis H. Munn, Topeka, has been appointed medical referee for the Kansas agency, and chief medical examiner for the Mutual Life Insurance Company, of New York, at Topeka.

Must Fumigate Schoolhouses.—The State Board of Health has issued an order that every school house in the state must be fumigated before the opening of the school term in September.

Joseph A. McKenzie, M. D., Kentucky School of Medicine, Louisville, 1879, died at his home in Eldorado, Kas., June 25, five days after an accident in which he was thrown out of an automobile and seriously injured, aged 65.

Health Board Elects.—At its annual meeting, June 27, the State Board of Health elected Dr. Joseph B. Carver, Fort Scott, president and Dr. B. J. Alexander, Hiawatha, vice president. The secretary, Dr. S. J. Crumbine, Dodge City, holds over.

Dr. John Van Vliet attemppted suicide at his home in Wheaton August 7 by drinking carbolic acid. He died that night. Dr. Van Vliet returned recently from Kansas City, where he was a patient in a hospital. Brooding over ill health is assigned as the cause of the suicide.

Herman Nothnagel, M. D., the great Vienan clinician, instructor and investigator, died suddenly, July 6, from the effects of arterio-sclerosis of the heart, aged 64. He had attended to his daily round ot professional duties, not returning home from his last call till half past ten, and the heart failure occurred soon after. He was born in Bradenberg and became assistant to Leyden in 1865, then assumed a professorship at Freiburg and later at Vienna which he made world-famous by his incumbency. He has been a member of the Austrian House of Lords since 1902, and has had all kinds of honors heaped upon him. Many of his works are as well known in this country as abroad, especially his studies on the physiology and pathology of the nervous system, on epilepsy, and on intestinal and peritoneal affections. His saying that "only a good man can be a good physician" is one of the axioms of the profession nowadays, and well illustrates his own view of life.

K. Wernicke, M. D., one of the most prominent neurologists of the day, succumbed recently to the immediate consequences of a bicycle accident while on a tour in Thuringia, aged 57. His labors to supply a scientific foundation for psychiatry in the pathology of the brain have accumulated a wealth of data which will supply a field for research for many years to come. He was one of the principal creators of the modern anatomy of the brain, and was the originator, at 26, of the present conception of aphasia and its pathological basis. Fuchs styles this "the first work that bridged the gap between mental disease and morbid processes in the brain." Wernicke was the first to describe the pupil reaction in hemianopsia and the processes in hemorrhagic polioencehpalitis. He studied medicine at Breslau and was assistant to Neumann and Westphal for a time, was appointed professor at Breslau in 1890 and at Halle in 1904. History records that he was the first to locate a neoplasm in the brain and systematically proceed to order its removal. This was as long ago as in 1882, and he is thus said to be the founder of surgery of the brain.

New Hospitals.—Larned is to have a new fifteen room hospital. The corner stone of the new Allen county hospital at Gas City was laid July 4. The Mennonites are building a new hospital at Newton.

John Morgan Ramsey, M. D., St. Louis College of Physicians and Surgeons, died at his home in Silver Lake, Kas., March 19, from laryngeal and pulmonary tuberculosis, after an illness of one year, aged 41.

List of New Members of the American Medical Association during the month of June, 1905. Alexander, J. B., McPherson; Cole, C. W., Norton; Davis, O. P., Topeka; Scott, T. W., Stafford; Schoor, W. F., Hutchinson.

New Hospital For Wellington.—Mrs. A. E. Peck is fitting up the old Piatt Home in Fifth ward for hospital purposes and expects to be open for patients about August 1. There will be wards provided for twelve patients and an operating room. Everything will be modern and first-class. There will be one trained nurse in attendance and more when needed. The hospital will be open for all physicians and their patients. The Piatt home, large, commodious house, and well located for a hospital. It is hoped that Mrs. Peck will meet with encouragement as Wellington needs an institution of this kind.. The rates are: Room, board and nursing, $10 to $30 per week; Ward rooms, $10 per week; Use of operating room, $3.00. In ordinary cases nurse is supplied free. Extra charge in cases requiring special care. Terms are cash, one-half in advance.

Geuda Springs Water.—"Geo. W. Adams returned Friday from Winfield, where he has been attending district court, and reports that the injunction case of John Jablin, proprietor of the Loomis hotel against Jas. L. Tuttle, owner of Geuda Springs, was decided by Judge Swarts in favor of his client, Mr. Jablin. This case was tried some weeks ago and was taken under advisement by Judge Swarts until yesterday, when the court handed down his decision, granting an injunction aganst Mr. Tuttle, restraining him from closing the springs as against the guests of the Loomis Hotel. This case has been watched with much interest by lawyers and people generally, on account of the legal points involved respecting water rights in land not owned by persons claiming such water rights. The effect of this decision is that Geuda Mineral Springs will be accessable to all others who may go there either for health or pleasure."—Wellington Eagle.

Licensing Examination.—Dr. Geo. F. Johnston, Lakin, reports the written examination held at Kansas City, April 25–27, 1905. The number of subjects examined in was 15; total number of questions asked, 100; percentage required to pass, 75; The total number of candidates examined was 108, of whom 97 passed and 11 failed. The following were represented:

PASSED.

COLLEGE	YEAR GRAD.	PER CENT.
Rush Medical College	1904	83
Kansas City Medical College (1905) the grade of 76 was reached by one, 77 by three, 78 by four, 79, by three, 80 by seven, 82 by one, 83 by three, 86 and 87 by one each.		
Central Medical College, St. Joseph	1905	81, 78, 81, 79
University Medical College, Kansas City, Mo.	1905	the grade of 76 was reached by one, 77 by three, 78 by five 79 by five, 80 by five, 81 by three, 82 by two, 84 by one, 85 by three.
Homeopathic Medical College, Kansas City, Mo.	1900	77
Beaumont Medical College	1898	78
	1905	79
Ensworth Medical College	1905	78, 79, 80
Medico-Chirurgical College, Kansas City, Mo.	1905	76, 80, 80, 77, 81, 81,
University of Louisville	1897	75
	1904	78
Louisville Medical College	1898	80
Hahnemann Medical College, Chicago	1876	76
Kansas Medical College, Topeka	1905	the grades of 75, 77, and 78 were reached by one each, 79 was reached by two, 80 by four, 81 by two, 83 84, 85 and 87 were reached by one each.
Eclectic Medical Institute, Cincinnati	1905	78, 80.
University of Nashville	1904	79
Ohio Medical College	1904	79
College of P. &. S., Kansas City, Kas.	1905	80, 82
College of P. & S., St. Louis	1905	80

FAILED.

College of P. & S., Keokuk	1895	74
Ensworth Medical College	1904	73
Central Medical College	1905	73
Eclectic Medical University	1905	70

Ohio Medical College	1903	74
Northwestern University	1897	72
Hahnemann Medical College, Chicago	1890	73
Medico-Chirurgical College, Philadelphia	1892	70
Barnes Medical College	1896	71
Missouri Medical College	1900	74
Gross Medical College	1902	72

The general average attained by all representatives of the Kansas City Medical College who passed was 80.4; of University Medical College 79.5; of the Medico-Ghirurgical College of Kansas City, 79.1; of the Kansas Midical College, 80.6 (From JOURNAL A. M. A.)

Measurements of the Pelvis.—At the meeting of the American Gynecological Society held in Niagra Falls, May 25.27, 1905, a committee committee composed of Drs. A. F. A. King, William Williams, Edward P. Davis, reported that they were able to define a typical head and pelvis, giving measurements which should be standard for teaching purposes, as follows:

EXTERNAL MEASUREMENTS OF THE PELVIS.

Iliac Crest	11 inches
Infraspinous	11¼ inches
External Conjugate	8 inches
External Oblique	8¾ inches
Bitrochanteric	13 inches

INTERNAL MEASUREMENTS OF THE PELVIS.

Conjugata Vera	4¼ inches
Diagonal	5 inches
Transverse	5¼ inches
Anteroposterior	3¾—4¼ inches
Transverse	4¼ inches
Depth of Pelvis at symphisis pubis	2 inches
Depth of Pelvis at tuberosities of ischia	5 inches

DIAMETER OF HEAD.

Occipitometal	5¼ inches
Occipitofrontal	4½ inches
Frontomental	3½ inches
Biparietal	3⅜ inches
Trachelobregmatic	3¼ inches

NEWSPAPER NOTORIETY.

BURLINGAME, KAS., AUG. 12, 1905.

DR. G. H. HOXIE, Kansas City, Kas.

DEAR DOCTOR:—I guess we have about the worst of any town of our size in the state. I am enclosing a clipping from one of our local papers which is self explanatory. The editor assures me that the notice was paid for at full reading matter rates. You can use your pleasure about publishing this notice in the JOURNAL. I think, however, that a little publicity in matters of this nature would have a tendency to stop them, for if a doctor(?) knew that when he so far forgot his profession as to indulge in such flagrant violations of the ethics of the profession as this, his record will precede him if he attempted to locate elswhere in the state, it might check his desire to profit by knocking on his competitors.

Yours fraternally,

J. A. CONNOR.

AN ANNOUNCEMENT.

To the People of Burlingame: As a citizen of Burlingame, and having the interest of her people at heart, I want to address a few words to you at this time along an important medical line. You are all aware that death is working its ravages every summer in this and almost every community, in taking our infants from us by summer complaint and cholera infantum. I am prepared to say to you that these two diseases are, by proper treatment, absolutely curable in every case, and that by the use of up-to-date methods and good medicines thousands of physicians all over the country are curing every case. I have used these same methods for several years and have never lost a case. In fact, I have never lost a child from any acute disease since I have been practicing medicine, and you well know that I have successfully handled some of Burlingame's most severe and critical cases of illness among children. I give special attention to acute diseases and especially the diseases of children. In the summer bowel complaints of children from any cause, I will guarantee a cure in every case or ask no pay, and will also agree to furnish the medicine free on every case. I have my own stock of fresh drugs in my office, and will furnish at first hand, direct from my office, all drugs used on my cases. In going to the country on cases I do not send you back to town to get prescriptions filled, and cause you to lose time in getting patients started on medicine, but have all necessary medicines in my buggy to meet every requirement for the first day or two, and if other medicine is necessary, I prepare and bring it the next day.

You can call this advertising if you want to, but if by a little advertising you can the sooner find out what I can do for you, and thus be the means of saving your little ones for your joy and comfort during this present summer season instead of allowing the Burlingame cemetery to be the receptacle of so many of them, I think you will thank me in the end for letting you know. I know what I am talking about, and when

I say I can cure these cases if given a fair start on the case, and can guarantee a cure or no pay, I mean what I say, and can prove it if you will call upon me. I am going to make it a rule in my practice, in acute cases, to ask pay only for cases I cure, and if I fail to cure any acute case which I have had from the start, I am not going to have nerve enough to ask a father to pay for my unsuccessful services in addition to funeral expenses.

I address you these words in sympathy and with a full realization of the many hearts that are aching in this community because of the loss of little ones, whom I think ought to still be in their mother's arms. I am, Respectfully yours,

Tel. 212. H. L. CORNELL, M. D.

Office over Oliver's Grocery Store.

THE MISSOURI QUESTIONS.

June 1905.

PRACTICE.

1 Give Aetiology, symptoms and treatment of Angina Pectoris. 2. What is an essential fever? Name some of the principal ones. 3, Give Aetiology, symptoms, and treatment of cholera infantum. 4, What is Pleurodynia? Give symptoms and treatment. What is Bradycordia? 6, Define Intermittent and Irregular pulse. 7, Give Aetiology, symptoms, and treatment of Multiple Neurtitis. 8, Discuss Ptomaine poisoning. 9, Give Aetiology and symptoms of Hemiplegia. 10, Discuss Uremia,

THERAPEUTICS.

Give the Therapeutic action of the following drugs: 1, Aconite. 2, Aloes. 3, Arsenic. 4, Belladonna. 5, Coca. 6, Digitallis. 7, Gelsemium. 8, Hyoscyannus. 9, Lobelia. 10, Mercury.

BACTERIOLOGY.

1, Describe the cultural characteristics of the bacillus of human tuberculosis. 2, Describe the organisms which cause, (a) infectious cerebrospinal meningitis; (b) erysipelas. 3, Describe the bacillus tetani. Where is it found normally? Discuss the value of antitoxin for tetanus. 4, What do we understand by the term, "secondary infection"? 5, Give methods whereby you can increase and decrease the virulence of strepto-

coccus pyogenes. 6, Give the distinction between natural immunity and acquired immunity; active and passive immunity. 7, How would you determine the disinfecting power of formaldehyde? 8, How would you prepare dyes with which to stain Gonococci and tubercle bacilli? 9, Describe, (a) the bacillus influenzæ of Pfeiffer; (b) the bacillus diptheriæ (Klebs-Lœffler.) 10, Name some bacteria pathogenic for man wh.ch produce spores.

OBSTETRICS.

1, Give treatment of threatened abortion. 2, Would you use intra uterine irrigation after labor? Under what circumstances would you use it. Explain how to use it. 3, Under what conditions, if any, would you be justified in producing premature labor? 4, Define menstruation, ovulation and conception. 5, Give duration of pregnancy, period of quickening and physical signs of pregnancy at fifth month. 6, Give causes and treatment of ante-partum hemorrhage. 7, Give cause and treatment of post-partum hemorrhage. 8, Given a case of R. O. P., describe in detail how to apply forceps. 9, What anesthetic would you use in labor, and to what degree would you push the anesthesia.? 10, What symptoms indicate the approach of puerperal eclampsia, and what treatment, if any, will prevent the occurrence of the eclampsia.

SURGERY.

1, Under what conditions is the administration of chloroform dangerous? 2, Describe and treat a case of talipes varus. 3, Describe compound fracture and detail the treatment of any one bone. 4, Describe the symptoms and give the treatment of traumatic perforation of the intestines. 5, Describe Tracheotomy for a foreign body and what you would do if foreign body was not found. 6, Classify strictures of the male urethra and give treatment. 7, Describe paracentesis Thoracis. 8, How would you amputate the second phalanx of the fore finger in the continuity of the bone? Describe fully? 9, Describe the ligation of the femoral artery in Hunters Canal. 10, Describe a bloodless method of amputation at the hip joint.

ANATOMY.

1, Name the bones of the upper extremity. 2, Describe the femur, with what bone does it articulate? 3, Name the bones of the middle ear and articulate them. 4, What bones form the contour of the nose? 5, Describe portal circulation. 6, What arteries supply the heart with blood for its nutrition? 7, Give the macroscopic anatomy of the heart. 8, Give the anatomy of an artery, also of a vein. 9, What is a mucous membrane, give anatomy of it. 10, Give the anatomy of the skin.

JURISPRUDENCE.

1, What is Tyrotoxicon? In what found? 2, What is Ptomains? In what found? 3, What is Dipsomania? 4, What is Pyromania? 5, What is Kleptomania.

PHYSIOLOGY.

1, Give the physiology of the heart. 2, Describe the foetal circulation. 3, Describe the second pair of cranial nerves and give function of same. 4, Give origin and function of the sympathetic nervous system. 5, Name the different pancreatic ferments and give office of each.

HYGIENE.

1, Enumerate the hygenic advantages respectively of cotton, linen, woolen, and silk underwear. 2, Why and how is carbon dioxide deleterious to health? 3, Describe a properly ventilated bed-room, giving the relative proportion of floor space to window space? 4, What do you regard as the best method of heating a dwelling and why? 5, What do you regard as the best method of disposing of the dead.

ACCOUCHEMENT FORCE.

G. A. BIDDLE, M. D.
Emporia, Kansas.

Forcible delivery to hasten the termination of labor. This constitutes practically about all there is in obstetrics, after excluding the very large majority of cases that require no interference at all. The indications for accouchement force are many. Among the most urgent we will mention eclampsia, placenta, praevia, uterine, inertia, rigid os uteri, where the natural forces fail to dilate, exhaustion of collapse from any cause calculated to endanger the life of the mother. The various mal presentations. I might mention others, but the character of this paper will not permit me. The means of meeting these indications are: The various methods of dilating the uterus and inducing premature forced labor and delivery, version; caeforceps; caesarean section, superficial and deep cervical incision, and Duhrssen's vaginal caesarean section.

The question is often asked, how long should the obstetrician wait before resorting to force? I will say that this question cannot be answered categorically; or the time fixed by any number of hours, but must be left

solely to the discretion of the obstetrician who should be fully impressed with the fact that the sin of omission is equally as reprehensible as the sin of commission. In eclamsia, waiting is seldom justifiable, even though the convulsions may not be violent, notwithstanding the fact that you may cite case after case where you have temporized and waited, and ultimately had the satisfaction of being present to witness a natural labor. I am of the opinion that the risk is too great to justify the gain. The same will apply to placenta praevia, except where the patient is constantly under the care of capable attendants, as in a hospital. In a case of eclampsia coming on as it often does, like a clap of thunder from a clear sky, before any effort towards labor, before maturity of pregnancy, without dilatation of os, the carvix yet elongated, I would today at once prepare this woman for delivery, by rendering her parts as near aseptic as possible, evacuate the bladder and rectum, and with the Bossi dilator, dilate the os and deliver. Until within the last two years I have been in the habit or resorting to manual and bimanual dilatation, calling to my assistance Goodell's dilator as an entering wedge, as it were, Barnes' bags and other similar devices. While I have had fairly good success with these appliances, I was constantly meeting with cases where it was almost impossible to effect complete dilatation of the os, necessitating much hard work and hours of time—time of vital importance to the patient, and on account of this delay and incomplete dilatation the frequent loss of the child; and, on account of the incomplete dilatation the uterus was frequently severly lacerated by the forceps in completing the delivery. I regard it as very bad practice to make a forceps delivery through an incompletely dilated os. But what are you going to do about it after you are worn out with bimanual efforts to dilate the uterus and with all this, you can only accomplish about two and a half or three inches of dilatation? In this connection I will briefly recite a case in point.

Mrs. M.— age 30, Prim. at term. I was called in consultation after this woman had been in labor about 18 hours—found patient having hard bearing down pains —uterus forced down low—os dilated a half inch—pulse quick—vital powers failing After consultation it was determined that delivery must be made. We undertook to make bi-manual dilation. I at first used a Goodell dilator then bi-manual—after an hour of the hardest work I ever done in my life I succeeded in getting about 3 inches of dilatation when under pressure, which would retract to two inches when left alone a minute or two. I then applied forceps and after another hour of hard work the child was delivered, still born and from a severely lacerated uterus. The mother made a good recovery.

During the last ten years I have made three deliverages for placenta praevia at the sixth and seventh month; four of eclampsia at the sixth and seventh month; and seven of rigid os at term— using manual and bi-manual methods aided by Barnes' bags and the Goodell dilator. The three cases

of placenta praevia were rapidly delivered, with two severe lacerations of cervix, requiring repair. The eclampsia cases were rapidly delivered with severe laceration of cervix in two cases requiring repair. The mothers did well in all—and all the premature babies were either still born or survived only a few hours. In the seven cases at term—one sustained a severe laceration of the cervis requiring repair, all made a good recovery. Three babies were still born.

About two years ago I read an article in some medical journal reporting wonderful success with the Bossi dilator. I had no idea what is was, or like. I at once procured one, and on inspection, I was at once impressed with its formidable power. I concluded that one might almost dilate the key hole in the door. The first time I had occasion to use it, was in a case of eclampsia at six months, coming on without any manifestation of labor. I made a rapid dilatation and delivery, completing the operation in about forty minutes without laceration. After I was through I felt like exclaiming: "veni, vidi, vici." Since then I have had occasion to make forced dilatation of the os uteri twelve times; and with such universal success that I now go into the lying-in chamber, feeling that I am absolutely master of the situation. I will refer briefly to a few cases where I have used the Bossi dilator.

Case 1.—Prim. age 24; at 6 months, without any warning was seized with eclampsia. She had two seizures before my arrival. I found her in profound coma—heavy breathing—froth and blood exuding from mouth. I at once proceeded to deliver. Fortunately there was present a very intelligent woman whom I could trust with the anaesthetics after I had once anaesthetized the patient. After due preparation I proceeded to dilate, bringing the hips of the patient near the edge of the bed, in lithotomy position, intrusting each knee and foot to an assistant. I then pushed the anaesthetic to surgical degree, and right here I want to say that this is a part of the operation that must be attended to. Obstetrical anaesthesia is not sufficient; the patient must be fully anaesthetized. By so doing she suffers far less from shock and you relax the muscular resistance, rendering dilatation easier, safer, and more rapid, with far less danger of lacerating the cervix. It is extremely dangerous to have the woman moving and making resistance while dilating with the Bossi. Everything being in readiness, I inserted the dliator without the caps, grasping the shaft of the dilator with one hand, my index finger on the os, dilated to five cm.

I then removed the instrument and placed the caps in position and resumed the operation—intrusting the turning of the screw to an assistant often not turning the screw more than one half inch, then waiting a few seconds my finger on the dilating os all the time, carefully noting the degree of tension. In 35 minutes the os was fully dilated, 4½ inches. I then removed the dilator; the amniotic sac having been ruptured, found a foot presentation, I seized the foot and made a rapid delivery; the child was alive, but only survived a few hours. Patient had no more convulsions, made a rapid recovery, no lacerations.

Case 2. Prim. age 25; near full term; seized with convulsions before labor had started. She had three seizures before I was called. On my arrival, after a brief consultation with the attending physician, it was agreed that delivery was indicated.

Rapid dilatation was made and forceps applied and a living child delivered in about 45 minutes—child is still living—no laceration. I then left the patient in care of the attending physician, who informed me that she continued to have convulsions and died fourteen hours later.

Case 3. Prim. aged 30; at term. I was called after the woman had been in labor twelve hours, found her having heavy pains, expulsive in character. She was an extremely nervous patient, so much so that the attending physician could not make a vaginal examination without giving an anaesthetic. I found the os dilated to about one inch, very rigid and hard, not dilatable, the patient giving marked evidences of failing powers. We determined to deliver at once, after being prepared and fully anaesthetized we dilated and delivered a living child in about 40 minutes. Mother and child did well. She had a slight laceration of cervix, which did not require repair.

I will not consume your time by reciting either case, only to say that all did well, both mother and child, except in three cases where the child was premature and were lost all before delivery. Only one case sustained a slight laceration. One child at term was lost on account of delay in delivering head from a tight and rigid perinaeum. I have taken special pains to bring into prominence the Bossi dilator because I am well aware of the fact that there are quite a number of good men in our profession who are loud and strong in denouncing the Bossi dilator. It has ever been thus, since the memory of man. Nothing has ever been brought forth in the way of invention or discovery that was not cried down. It has ever been the survival of the fitest. If the Bossi dilator cannot survive the criticisms that are being hurled against it, then it will have to fall, but it will not fall until something has been given to us that is better, and has been tested in the crucible of criticism and found not wanting. I have already conceded the charges that are brought against it, viz: That it is an instrument possessing great power and capable of doing great damage. Something must tear or dilate, but when you are conscious of your power to do damage, you are forewarned, hence forearmed when used with care and conscious of the damage you are liable to inflict, there is an element of safety in this knowledge. With your patient anaesthetized to the surgical degree—your finger on the os, carefully testing the degree of tension—being careful not to move the screw more than a half inch each time and giving five to ten seconds rest after each turn of the screw, you are not going to lacerate the uterus very often. This instrument can be rendered absolutely sterile, which is more than can be said of the Barnes bags or the many other bags that have been and are yet being used, so also your hand that you thrust into the uterus with impunity.

Conservative Caesarean Section is an avenue of escape in case of contracted pelvis or rupture of the uterus. This operation is being recommended and urged by some of our surgeons in preference to dilatation, as being safer to both mother and child and more speedy. Among those who

favor Caesarean Section to dilatation is Dr. John Deaver, of Philadelphia. I must say that this operation will never become popular or practical out side of first class hospitals, with expert surgeons and assistants, but as implied by conservative Caesarean Section, it has its field of usefulness, but will always be very circumscribed.

Duhrssen has given the profession an operation that is far more conservative and no doubt will prove a successful and practical operation for the reilef of many cases requiring accouchment force. Just now the enthusiast can see nothing good in any other operation. In the hands of a reasonably expert surgeon with favorable surroundings, I am of the opinion that it is a good operation to make. Superficial and deep cervical incisions are urged by obstetricians who are not favorable to Bossi dilators and are "consigning it to the lumber room of obstetrical instruments." I will say that so long as the Bossi dilator serves my purpose as successfully as it has so far I shall continue to use it; especially when I have the commendation of such masters as Leopold, Meyer, of Copenhagen, Beck and Knapp of Prague, Peters of Dresden, Dickensen of New York, and many others. Leopold declares that it is a safe and useful instrument and should be in the hands of every practitioner and that in the future eclampsia will rarely furnish an indication for Caesarean Section. Dickenson of New York proclaims the Bossi dilator a great boon, and none of its imitators approach it. Edgar says: "It is probably the best instrument now at our disposal." And your humble servant is of the opinion that it solves the problem of accouchement force; because with it you are absolutely master of the situation in a large majority of cases requiring force.

CASE REPORT.

FRANCES A. HARPER, M. D.
Pittsburg, Kansas.

The following cases have heen especially interesting to me, and I trust may be of some interest to others:

Case 1.—Miss J. B., dressmaker, age 21 years. Gave history of fre-

quent severe paroxysms of pain in left side, reaching back over a period of more than a year, never was perfectly free from discomfort there. These severe spells would last for several days, at which time she noticed local tenderness and swelling; the paroxysm passed, she would be much prostrated. Bowels rarely moved excepting in response to some sort of a purge or enema. She had consulted her family physician several times, but he assured her that her principal trouble was simply "nervousness." For a month or two previous to consulting me her condition had bee getting progressively worse, the severe pain being almost constant, the seat of the pain in left iliac fossa assuming a hardened and tumor-like condition, gradually increasing in size and tenderness, until it became almost impossible for her so wear her clothing at all tight. She had grown extremely nervous, had occasional fainting fits, was trembling and cyanosed, and the slightest exertion seemed to "take her breath." as she expressed it. This was the picture she presented when she came to me.

Examination revealed a pulse of 120; temperature 100.2; tongue thick, flabby and coated. On palpation abdomen was found tumified and tympanitic, presenting on left side a well defined sausage like pulsating tumor, extending up to umbilicus, very painful and tender. Thinking possibly it might be a fecal tumor, I gave mercurial purge, followed with generous dose of caster oil, also saline upon rising in the morning. Prescribed for nervous symptoms etc., and told her to report next day, which she did. Bowels had moved well, several watery stools, tympanites had somewhat subsided, but tumor remained, less painful but better defined and very sensitive to touch. She complained of a sensation of heat and pulsation in the region, and the pulsation could be distinctly seen. Menstrual periods fairly regular with little pain. Occasionally, however periods were too near together, sometimes two weeks or three weeks apart, with profuse flow, amounting to almost a hemorrhage.

Vaginal examination revealed a profuse purulent discharge, engroged, and ulcerated cervix, in fact, a fierce endometritis. This condition, coupled with a decidedly sensitive and pulsating tumor in left iliac fossa, and over left ovary, looked very much as though surgical measures would have to be resorted to in order to clear up the trouble.

She had about made up her mind before consulting me that she had a tumor of some kind, and feared an operation would be necessary. After

a week or so of medication and local treatment, symptoms subsided somewhat, but tumor remained, and profuse vaginal discharge continued, less purulent, however. Bowels were kept active with salines. Temperature fluctuated from subnormal to about a dergee or a degree and a half above normal; erratic pulse. Appetite variable, craving at times pickels, sauer craut, beans, cabbage, etc.

Seeing no very marked improvement in the condition, I decided to call in counsel, examine thoroughly under anaesthesia, and if necessary, operate. Before doing so, however, she desired to go home, (she lived in the country) and consult her parents in regard to the matter. Upon leaving I instructed her again to take a thorough mercurial purge, followed by an ounce of oil, and to continue saline in the morning. She was was gone four or five days. Upon her return I remarked her greatly improved condition. She could hardly wait to tell me her experience. She had taken the calomel purge and oil as instructed; bowels moved freely and easily, tumor suddenly went down; pain completely subsided, leaving only tenderness. She had passed from the bowels quantities of worms in hardened masses. She said there must have been a half gallon of them.

Suffice to say that the tumor'"' was effectually laid, and an operation made unescessary.

After a course of general tonic and laxative treatment, with douches and applications for the uterine condition, within a week she was improving, and within a month she was gaining rapidly. with a gradual subsidence of the local tenderness, and no return of pain or tumor. At last last accounts the had gained fifteen pounds, was rosy and well and feeling better than she had felt for years.

Case 2 is one with history of indigestion, constipation, etc., with occasional recurrences of pain in right iliac region. Six or eight months previous had attack of appendicitis, but refused operation. Since that time had been living on diet of fruits and cereals, otameal, and cream being principal diet. About two months previous to my seeing patient, a hardened mass had been observed in right iliac fossa, just below the short ribs. this had gradually increased and grown tender, and an operation seemed inevitable. Castor oil, calomel, and sailne purges, and high colonic flushing brought away quantities of hardened masses of oatmeal shells and hulls.

It took a week or ten days to clear out all this rubbish, and the lady has left oatmeal off her diet list for a time. Some months have elapsed, with no return of symptoms.

Wanted.—A position on salary for a mining company or other corporation by a graduate of the Kansas Medical College, class of 1904. Advertiser can furnish references as to character and ability. Address No. 15 JOURNAL office.

An Investment.—The attention of those who wish to make a safe investment with a little money is called to an opportunity for a short time offered—where money will be accepted only after a careful investigation from the investor himself. The proposition is one where the present owners have found that the development of their project will require more money than they can furnish—but where they do not wish to sell out. They therefore seek additional capital and take this method of communicating with possible partners. Those interested should address No. 16, JOURNAL office.

Notice to County Societies.—A complete card index for County Societies can be purchased from "The Globe Wernicke Co.," Cincinnati, Ohio, for 83 cents.

This facilitates the keeping of records of each county Society. The plan is a simple one, and I would recommend that all County Societies purchase this card index, and feel sure that it will be more satisfactory than the old system.

CHAS. S. HUFFMAN,
Secretary Kansas Medical Society.

Wanted.—A position on salary for a mining company or other corporation by a graduate of the Kansas Medical College, class of 1904. Advertiser can furnish references as to character and ability. Address No. 15 JOURNAL office.

Stegomyia fasciata has produced an epidemic of yellow fever in certain sections of Louisiana and adjoining states. Stegomyia punctata has inoculated thousands with virulent malarial germs thoroughout the balance of the Mississippi valley. Tongaline, Mellier, in one of its forms as indicated, anatgonizes and destroys the effects of these parasites on account of its ertraordinary eliminative action on the liver, the bowel, the kidneys and the pores, whereby the poison is promptly and thoroughly expelled.

The Carabana Prize.—The $50 prize recently offered by Mr. Geo. J. Wallau for the five reasons best defining why physicians should and do prescribe Carabana has been awarded to Dr. J. L. Hatch, New York. Dr. Hatch's reasons: 1. First and foremost because it is an ideal aperient water, comprising all the good qualities of other mineral waters without any of their objectionable features, its action being rapid but gentle, with no weakening after effects. 2. Because it contains more grains of the anhydrous mineral salts to the pint than any other mineral water. See analysis. One litre of Carabana water contains:

Sulphate of sodium	100.1110 gr.
Sulphite of sodium	0.0499 gr.
Sulphate of magnesia	3.0711 gr.
Chloride of sodium, 2 gr.	1.6000 gr.
Chloride of of magnesium, 2 gr.	0.4774 gr.
Chloride of calcium, 2 gr.	0.1967 gr.
Phosphate of sodium	0.0210 gr.
Alumina	0.0005 gr.
Anhydrous salts	106.0826 grams

3. Because, besides being cathartic, sanguifacient, antiseptic and antipyretic it is nutrifacient, a great boon to convalescents. 4. Because it can be given to patients suffering from disease of the genito-urinary tract where flushing is desired and other waters are contraindicated on account of the presence of ammonia-magnesian calculi. 5. Fifth, lastly and always, because it is agreeable as well as efficacious and can be borne by the the most delicate and sensitive stomachs, and also appeals to the most fastidious taste. "Qui pro sunt omnibus,"

Wanted, an opening. Either in small place of 200–400 people where there is at present no physician; or, in a place of 1500-3000 where the competition is not too great for a beginner. Send full information to the JOURNAL, No. 14.

For Sale--The only drug store in town, and practice. Good Kansas location. Price for the two story building, drugs, six residence rooms, good barn, including residence and office furniture, $4,000.00. Half on time if desired. **A money maker.**

A. J. JUDY, Waterloo, Oklahoma.

Scrofulosis with Involvement of the Skin.—"The form of scrofuloderma, most frequently seen in practice has its origin in the lymphatic glands of the neck, axilla, and inguinal region. Under the skin glands may be felt as firm, movable, tolerably numerous bodies. Their growth is slow and indolent. Occasionally here and there a gland may attain considerable size, which either remains indolent for a long time or undergoes spontaneous resolution, or more frequently terminates in suppuration. Preceding the suppurative process the overlying skin becomes thin and takes on a violaceous color. Later the skin breaks down and after rupture there is a discharge of thin curdy pus mixed with blood. Sinuses form and the skin is undermined and perforated leading to the formation of stranuous ulcers. In shape the ulcers are oval or linear and show purplish undermined edges. Pale, unhealthy granulations cover the ulcerous surfaces.

"In some cases according to Eve a conglomeration of glands may be detected which show no tendency to fuse or become matted together. Another form of strumous dermatitis is the so-called scrofuloderma, which commences as small nodules and gradually attains a considerable size. Hallopeau has observed that these gummata occur along the course of the lymphatics of a limb. Another skin manifestation of scrofula is chronic eczema of the skin or scalp found in patients who have a tuberculous diathesis. Eczema of this variety is apt to be scaly and indolent though very stubborn, and shows little response if measures are directed to the local condition alone and the general state of nutrition ignored.

"The above described conditions are most frequently encountered according to Holt, among children from three to ten years of age, and he recommends the very best surroundings as the "sine qua non" of treatment. be let alone, and the parts merely kept clean. For internal medication the syrup of iodide of iron and cordial of cod liver oil (Hagee) should be the physicians main reliance, and occasionally arsenic should be used to supplement the other tinocs mentioned."—American Journal of Dermatology.